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Photo: Bedford Lemere.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. THE DRAWING-ROOM.

R. S. LORIMER, A.R.S.A., ARCHITECT. See "*Current Architecture.*"

Architectural Refinements.

A Reply to Mr. Prior.—II.

THE problem of mediæval asymmetric plans is certainly a complicated, difficult, and largely unsettled problem. Mr. Prior's method is to argue from the doubtful cases that all of the asymmetric plans are due to causes which he believes to be sufficient explanation for those with which he is best acquainted. The suggestion of the Edinburgh Catalogue is, on the contrary, that some or many of the doubtful cases may be developments or phases of a systematic practice which is claimed to have in Italy incontrovertible and impregnable illustrations. This suggestion raises two questions: First, do the conditions described by Mr. Prior cover all the cases in Northern Europe? Second, do they cover all the Italian plans which I have surveyed and published?

Waiving the authority of Viollet-le-Duc,[12] we will take up on our own account the gauntlet which Mr. Prior has thrown down in his designation of "Class IV.—*Misfittings of work where alteration or stoppage of building has occurred.*" The contention that a stoppage of work will explain all deflected plans clearly concedes the ability of the mediæval masons to build to a straight line when the work was not stopped. The contention that the interposition of a screen dividing the completed choir from the uncompleted or unplanned nave will explain a bend in plan concedes the ability of the mediæval masons to lay down a true right angle or to build to a true line when no such screen interfered with their work. The difficulty with these explanations is that they do not cover the instances of the delicately continuous and unbroken curves in plan. For example, Saint-Ouen at Rouen, which ranks as one of the finest Gothic churches in Northern Europe, is built on a very delicate and continuous swinging curve ("Hogarth's line of beauty"). To verify immediately the existence and character of this swinging curve in plan, which is well known to the sacristan (or was in 1870), the visitor is advised to sight on the joints of the pavement slabs along the centre of the nave, and then to sight on the central line of the vaulting. The same curves can be sighted in the alignment of the piers.

Again, Notre-Dame at Paris not only has a deflected choir, but the entire nave, from the gallery parapets to the upper parapets of the clerestory walls at the roof line, has a delicate curve in plan convex to exterior on the north side and concave to exterior on the south side (with deflection at the centre of seven to nine inches), and swinging in opposed direction to the deflection of the choir. The visitor can most easily examine these curves in the exterior parapet galleries above the clerestory walls, but they are equally pronounced at the parapet of the triforium. As these curves are parallel on opposed sides of the church, it follows that thrust cannot explain them. (They are counter to thrust in the north gallery parapet of the nave.) The exterior lower aisle walls are absolutely straight. Here are facts (shown by photographs at Edinburgh) which Mr. Prior's theories cannot explain, because the curves are regular and continuous. Now, the question is, do these facts reach over into the phenomena which his theories are held to explain. For example, is the deflected choir of Notre-Dame to be explained on Mr. Prior's theory while the curves of the nave are conceded to be intentionally constructive? Logic says no. Then comes the question, how about the deflected choir in churches where the curves in plan are not found? Still admitting that local explanations might cover some of them, is it likely that they cover all?

There is another class of Italian plans, and not one example of such a plan has ever been published with measurements outside of the writer's publications, as far as known. These are the plans which are oblique to the façade, without bends or deflections of alignment in the outer walls. Thus we take up Mr. Prior's "Class III. —*Crooked Sites.*"

Now, on the theory either of crooked sites or of inability to lay out a right angle, some of these plans would necessarily have, on the doctrine of chances, diverging directions toward the choir. Some angles would accidentally be acute, and some would accidentally be obtuse. But in some thirty-six Italian cases of this type which have been surveyed or examined carefully, the writer does not know of any instance in which the walls are not oblique in the same direction. Two obtuse angles in the outer walls, widening toward the choir, have not been found in any one of these plans. The doctrine of conformity to crooked sites, as explaining all the oblique plans, may find its Waterloo here.

On the doctrine of chances it is also difficult to explain why in these same oblique plans the interior lines of piers or columns almost invariably diverge in straight lines toward the choir, especially when this fact is contrasted with the other just quoted, that the exterior walls never diverge in this fashion.

[12] As quoted in my preceding article for the asymmetric plan of the Cathedral of Saint-Denis.

Here again, in dealing with interiors, the insufficiency of the explanation of crooked sites or of a screened-off choir appears in more than one particular. The explanation of crooked sites presupposes the ability to lay out a right angle unless good reason exists to the contrary. It therefore does not cover the instances of normal and rectangular exterior plans with an interior showing diverging arcades; because in these cases the site is not crooked. Nor does it cover the cases of the oblique plans with interior diverging arcades, because the interior site is not crooked in the same way as the plan of the arcades.

As to the theory of screened choirs, which also presupposes the ability to lay out a right angle under normal conditions, there are three objections. First: The oblique plans are continuously oblique in straight lines, including the choir, in many instances where no transepts occur,[13] as well as in instances where transepts are found.[14] In other words, there are no bends or deflections of alignment to be explained in these cases. Second: The interior diverging arcades are found in churches where the divergence is continuous in unbroken lines from the façade through the transept, inclusive. Third: Many of the quoted churches are so small (having, moreover, no transepts, and no development of the choir, as usual in the Romanesque basilica types of Italy), that the suggestion of a long-delayed construction and of a screened-off choir is dangerously hypothetical, not to say foolish.

As regards the amount of divergence in plan in the instance of these interior arcades which widen toward the choir, measurements may be found in numerous plans, which were all exhibited at Edinburgh. We will only quote Ruvo Cathedral, widening in the nave two feet; S. Pietro at Toscanella, widening in the nave five feet; and Cremona Cathedral, widening in the nave from entrance to apse, eight feet. The arcade alignments are impeccable in all these cases.

Certainly it would be asking too much of Mr. Prior to have observed all these difficulties in his three hours' examination of the Edinburgh Exhibition. He has obviously not read the publication in which a number of these plans occur, otherwise he would have mentioned it, or would have considered the subject more carefully.[15]

There is still a matter to be considered in these plans, viz., the occurrence of progressive sequences of varied measurements in interior arcades or of varied measurements which correspond by pairs, showing an effort to break the monotony of a regular arcading, and to this we will return presently.

In the matter of the deflected plans of Northern Europe, the theory of "misfits" due to the abandonment and resumption of work surely cannot assume that the work was never locally continuous in alignment and execution because it was occasionally abandoned and interrupted as regards the sequence of time. It is difficult to understand why the laying-off of work for a week, or even for a day, would not serve Mr. Prior's argument as well as the stoppage of work for a number of years. Moreover, temporary screens and transverse walls might interfere with interior sighting, but they would not prevent exterior sighting and justification accordingly.[16]

The jocular suggestion that intoxicating liquors have played their part in these problems is also susceptible of wider application than Mr. Prior has given it. I see no reason why it should not apply to alignment, and if so applied, why debate the possibilities of screens or stoppage of work? "The mason sets out six spaces accurately and celebrates the event, perhaps, too lavishly one night, and the next morning 'has a head' and makes a terrible break in the average of accuracy." This, in effect, is the doctrine of most sceptics in these matters. The mason had "a jag," and if he did not he might as well have had one, for he neither cared nor knew what he was about. Mr. Prior's attitude is not as bad as this. He only suggests the "jag" where I have established a margin of builder's error. This overlooks the point that the margin of builder's error is supposed to include all the errors and all the causes for the same in any one given building. For example, in my publication on the margin of builder's error in English Cathedrals I have stated the greatest error in each building quoted.[17] Thus we have reached Mr. Prior's "Class I.—*Errors of Measurement*," under which the influence of intoxicating liquors is discussed as above quoted.

It is a pity that Mr. Prior has not more seriously considered the points brought out by the Italian surveys as regards variations of measurement. No such cases of variation are quoted as arguments unless the measurements are found *in pairs* or *in progressive sequences*, and in many cases used as arguments the measurements vary by pairs and in sequences combined. The chances

[13] Cathedral of Ruvo, for instance, with total obliquity from entrance to apse of 8 ft.

[14] Cremona Cathedral, for instance, with total obliquity from entrance to apse of 13 ft.

[15] It is quoted in the bibliography of the Edinburgh Catalogue; *Architectural Record*, Vol. VI, No. 3, January–March, 1897, "Constructive Asymmetry in Mediæval Italian Churches."

[16] This has also been overlooked by Count Robert de Lasteyrie. Reference follows later.

[17] *Scribner's Magazine* for September 1898: "Newly Discovered Refinements in Architecture in the Field of Art," with introduction by Dr. Russell Sturgis.

against a sequent variation of a certain number of measures in regular progression being due to error or accident are the same which hold against drawing the same measures, as written on slips of paper, out of a hat in the same regular order. The chances against any arrangement of measures, which correspond in pairs, being due to error or accident, are the same which hold against taking out of a hat the given series of numbers in the order in which they occur on one side of a given building, whatever that order may be. These are the considerations which determine the intentional construction of the interior arcades at Fiesole, and of both the interior and exterior arcadings at Pisa. These are the considerations which apply to hundreds of measurements in Italy. When a sequence of varied measurements occurs in pairs, the margin of builder's error may be established by noting the highest variation in any one pair. Mr. Prior does not explain why the mason who has "celebrated too lavishly" should make his mistakes in pairs.[18] He does not even suggest that it is due to "seeing double."

Similar considerations, as derived from the law of chances, apply to curves which are not due to thrust, settlement, or building to site; for in every true curve there is a regular sequence of masonry arrangement, and the chances against an accidental arrangement of such a sequence are enormous. For example, the chances against a single line of ten columns being accidentally set in a regular curve in plan are over three millions to one. The chances against two parallel curves of this character being due to careless setting out are beyond computation. According to the law of permutations and combinations the exact number of chances against the careless setting out of one line of ten columns or piers in a regular curve are 3,628,800 to 1.

It may be suggested that the differences of opinion as between Mr. Prior and myself are partially due to our different points of departure; his from English churches and mine from Italian; neither one of us knowing very much about the other's strength on his own ground. I have found no refinements in the Norman churches of South Italy, Sicily, or Normandy, as far as examined. It might, therefore, be presumed in advance that the churches of England would be more or less deficient in such phenomena, as far as Norman influence is concerned. I have also found that the phenomena which I have quoted are infrequent after the thirteenth century. Now, the Gothic of England is very largely later than this. Moreover, by actual, though very hasty, search, the following English cathedrals have revealed no intended asymmetries, viz., York, Ely, Norwich, Salisbury, and Wells. There are some other churches, of which I prefer not to speak at present, but my observations in Great Britain are not very important so far. On the other hand, my experience in Italy tends to show that in order to reach any valid conclusions *all* the important churches of any given country must be examined. For Italy I have fairly attained this ideal in field-work, although not in publication, for which both time and money have been lacking.

In France the territory covered has been very limited, but includes all the great Northern Gothic cathedrals. Here what may be called the Pisanesque phenomena have only been found in Notre-Dame at Paris. Otherwise, the phenomena observed have been mainly limited to the vertical curves and the vertical widening. The evidence for these phenomena as constructive is overwhelming, in my opinion, in the French churches. The deficiency of observations for the French and German Romanesque is to be regretted.

In England, as an outlying province of the Continent, it has always been my belief that constructive asymmetries would be minimised, mainly because the late mediæval period was the period of their disappearance, and because there is so much late work in England.

Very valuable evidence is, however, to be obtained from the buildings in which no constructive asymmetries are found; for the more numerous these buildings are, the more difficult it is to concede that the hitherto quoted explanations will cover the Italian or French phenomena.

A deficiency in Mr. Prior's review, unavoidable by one not familiar with the Italian churches, is thus brought to notice. This deficiency consists in overlooking the argument to be derived from the churches which are deficient in constructive asymmetries. The following list of Italian cathedrals and first-rank churches in which no constructive asymmetries have been observed would be very materially increased if second-rank or minor churches were included:—Milan Cathedral; Church of the Certosa, Pavia; Cathedral of Verona, Churches of S. Zeno and S. Anastasia at Verona; Cathedral of Padua; Church of the Frari, Venice; Cathedrals of Murano and Torcello; Cathedrals of Bologna, Florence, Pistoja, Viterbo; S. Apollinare in Classe and S. Vitale at Ravenna; S. Ciriaco, Ancona; S. Maria Sopra Minerva, Rome, and most of the early Roman basilicas; Cathedrals of Salerno, Ravello, Palermo, Monreale, Barletta, Molfetta, Bari, Bitonto, Matera, Altamura, etc.

On what possible theory can it be suggested that the churches represented by the Edinburgh exhibits should be radically different from those

[18] For an analysis of such measurements, with numerous quotations, see the *Architectural Record*, Vol. VI, No. 3, 1897.

mentioned by this list (which is only thus limited by deference to the patience of the reader), excepting on the theory that they *are* different? What fortunate fate has spared these cathedrals, and so many more churches which might be mentioned, from the consequences which flow, according to Mr. Prior, from a headache after a spree? Are the foundations any better at Torcello or Murano than they are in S. Mark's? Was the choir screened off in San Apollinare Nuovo and was the screening system abandoned in San Apollinare in Classe; both churches of the same dimensions, age, and style, with well-known histories? Was the Cathedral of Florence completed without the interruptions which are supposed to have affected Fiesole?

If the thousand-and-one explanations which are hypothetically suggested by Mr. Prior for the Edinburgh exhibits are valid explanations, why are they not needed in a vast multitude of other Italian examples? If the special phenomena of the Pisan Romanesque need no special explanation, why are they not found all over Italy and all over Europe, etc., etc.? These are the questions which a serious student is obliged to answer. Moreover, they are questions which demand serious knowledge of the architectural monuments, not simply in England, but in all Europe.

Aside from other differences of opinion between myself and Mr. Prior, there is this one. Mr. Prior "inclines to the thought that exactness, smoothness, and certainty are the real refinements." (And yet he has eloquently contended in his books that all the English cathedrals and churches which have been restored on this theory have lost their charm.) I incline to the thought so well and so definitely voiced by Viollet-le-Duc that there is a relation in principle between the asymmetry of Saint-Denis and the asymmetries of a Greek temple.

The same opinion has been definitely voiced by Auguste Choisy, who formally refers to the Greek refinements in his references to mediæval optical illusions and asymmetries.[19]

Neither does Mr. Prior's distinction between the "craftsman" and the "mystics and idealists" appeal to me when it classes the admirers of mediæval asymmetries with the latter. On this point Mr. Prior himself is dangerously near the mystics and idealists when his books are carefully studied. No one is more scornful than he about modern copies of the Gothic. No one is more eloquent than he in admiration for the irregularities of the mediæval workman. Why then deny so sturdily that this artist may have been conscious of his own virtues and capable of devising, as well as producing and accomplishing, some of his effects? I must admit that I have no knowledge that Mr. Prior has ever even examined the evidence which is based on the comparison of varied measurements when arranged in sequences or in pairs. This evidence was offered at Edinburgh in the shape of plans, but could only be obtained from them by the careful examination which it was expected that they would receive. It was impossible for me to rehearse the matter of all my previous publications in the Catalogue.

The following quotation from Choisy's recent "History of Architecture" may not be amiss here. It follows his own list of Gothic optical illusions:

"These irregularities are visibly intentional. There are others which must be considered bad work.

"The distinction between the two is sometimes difficult.

"But if we consider the experimental and almost subtle spirit of the Gothic architects, we shall be convinced that there was more often calculation than negligence."[20]

Does Mr. Prior contest the gospel of Auguste Choisy, and if not, where does one gospel end and where does the other begin?

Mr. Prior's review exhibits an occasional use of the plural which tends to buoyant exaggeration. For instance, in regard to certain Italian churches he says: "Mr. Goodyear claims that he has visited and examined all these churches and knows their history, whereas his critics know them not." This use of the plural number, especially when it appears to be quoted as one of my "claims" that my critics are unfamiliar with Italian churches, really needs filing down—attenuating, so to speak. If Mr. Prior is voicing his own opinion that my critics have been generally unfamiliar with Italian churches, the statement again needs some revision. Is Mr. Prior thinking perhaps of the adverse critics, and modestly concealing his identity under the plural number? Here again the phrase breeds misconception, for he does not stand absolutely alone as an adverse critic. Mr. Prior has spoken for himself in this matter, but he will hardly wish to speak for others, when he thinks it over.

All this leads up to some thought of the very numerous other reviewers who have dealt with the observations represented by the exhibit at Edinburgh, and it will not be forgotten that these observations have been represented by a very considerable number of publications (and of consequent

[19] *Histoire de l'Architecture*, Vol. II, p. 412.

[20] "Ces irrégularités sont visiblement intentionelles. Il en est qu'il faut mettre au comte des malfaçons.

"Entre les unes et les autres la distinction est parfois délicate. "Mais si l'on songe à l'esprit chercheur presque subtil des architectes gothiques, on demeurera convaincu qu'il y a plus souvent calcul que négligence."—*Histoire de l'Architecture*, II. p. 411.

reviews) most of which long preceded the Edinburgh Catalogue, and most of which were much more copious in text in various special directions as regards the various special points considered in it. As hereinbefore mentioned, the last sentence of Mr. Prior's review is as follows :—" Mr Goodyear's gospel will be good tidings to the mystic and idealist, but to the craftsman it is foolishness." A very considerable number of craftsmen have made publications regarding this research. A very inconsiderable number of craftsmen who have made such publication have regarded this research as foolishness. Hence Mr. Prior's standing as an authority on English Gothic makes it important to point out that his final sentence is misleading, and to put it rather bluntly, it does not at all square with the facts.

Aside from many published utterances those craftsmen are not to be overlooked in the membership of the Edinburgh Architectural Association who have formed a favourable opinion of the investigation, based on opportunities for an examination of the 300 exhibits which somewhat exceeded Mr. Prior's three hours' stay in the Scottish National Portrait Gallery.

This line of argument is not intended to belittle or diminish the authority of Mr. Prior, or the deference which may be due to his opinion. It is simply intended to qualify a statement which appears to be too sweeping, and which might even be considered by a captious or carping person to be presumptuous, and as waving aside altogether too summarily a very large number of expert and favourable criticisms. Let us rather only say that the statement is hasty, and that it carries with it, at least in appearance, the assumption of a right to speak for an entire body of architects of which body Mr. Prior and his friends are certainly important members, but certainly are not the only ones.

Wm. H. Goodyear.

Notes.

The beauty of a city is one of its most valuable assets from any point of view, and anything which threatens to impair it in any way should be jealously watched by all public-spirited citizens. It is very disquieting to learn that damage or destruction is threatened to the trees on the Victoria Embankment, which are so essential to the appearance and comfort of that thoroughfare, and this in order to make way for the new London County Council tramways, which are to bring happiness (and South London) within the reach of all.

It appears that there is a Parliamentary instruction that the trams are to be set only 3 ft. away from the kerbs, though no reason is forthcoming, and despite the fact that this regulation has in no case been followed elsewhere. There seem obvious and particular reasons why it should not be observed on the Victoria Embankment, as there we have a fine line of trees—a most important element in one of the finest views in London —which must suffer if the cars are allowed to come so close to the pavement, though probably the use of single-deck cars, even then, would not necessitate the mutilation of the trees. If double-decked cars are used, however, it would be a very different matter. But why, again one would ask, should double-deck cars be used on the Embankment at all? It was understood, to begin with, when the County Council proposed to make this connection between the North and South tramway systems, that the cars would proceed straight through from, say, Highgate to Tooting. It should be remembered, however, that the subway which has been built from Theobald's Road to the Strand, and which is eventually to merge on the Embankment, is not high enough for anything more than single cars. This will necessitate a change from the single to the double-decked cars, which might just as well be arranged on the other side of the river as on the Embankment.

The motor 'bus is not exactly a thing of beauty, and, if a joy at all, is rather a fearful one ; but it is preferable to a tramway, though in London we are saved from the ungainly posts and overhead wires which ruin the beauty and comfort of many towns. One had some hopes that the development of the former might prove a substitute for the tram. Tramways have, however, ruined the appearance of every town of importance already, and the endless clang of their bells must have permanently weakened the nerves of whole populations. It seems a heavy price to pay for cheap transit. Anyway, it would be simply barbarous to destroy the beautiful belt of trees on the Embankment when a little thought and careful planning would both meet the necessities of the public and preserve to them what after all is a valuable public possession.

Walter Crane.

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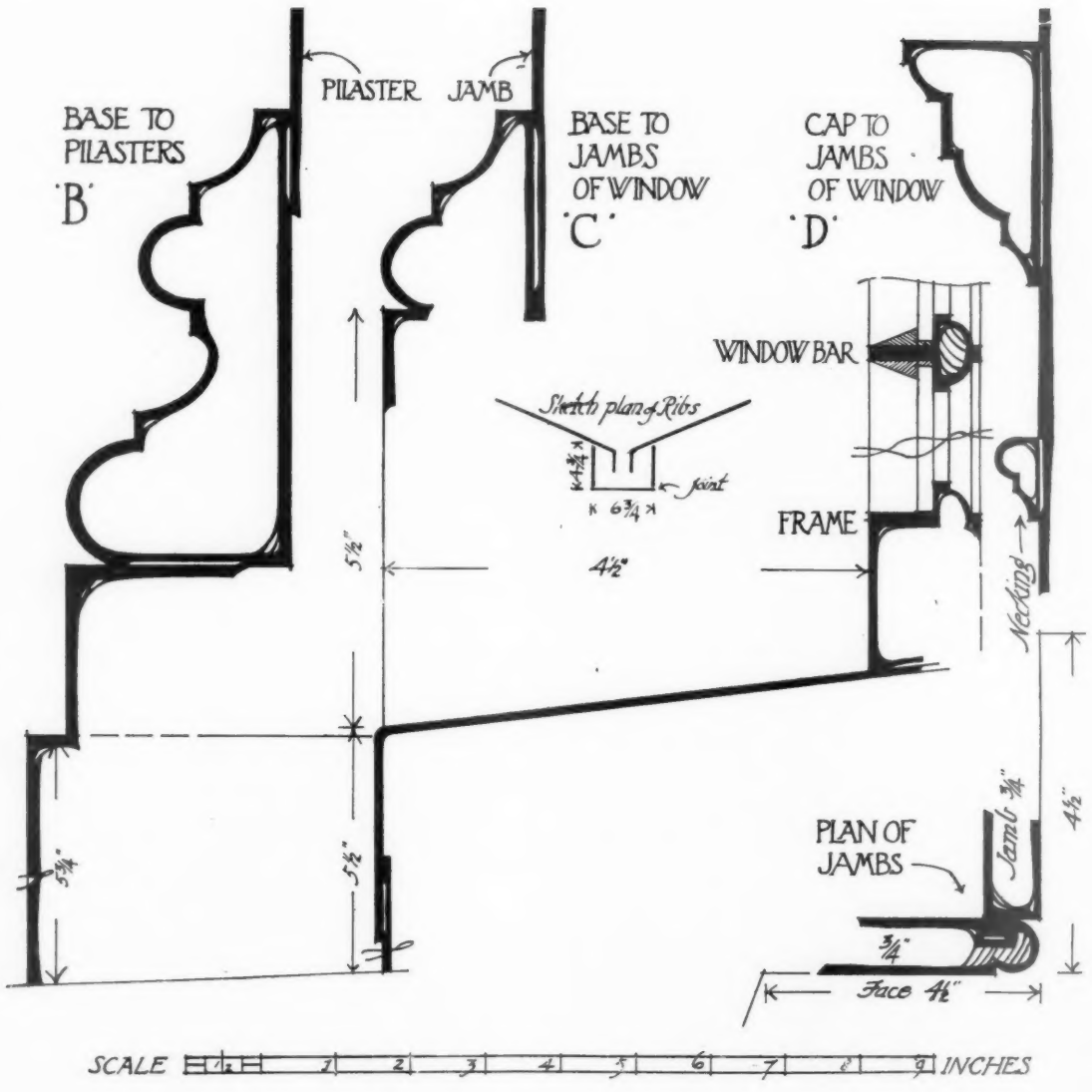
Alphabet Competition.—Designs from "Kingfisher," "Capstone," "Arrow," "Birdie," and "Jacko" (3), have been received up to Sept. 22.

The Practical Exemplar of Architecture.

VI.—Cupolas.

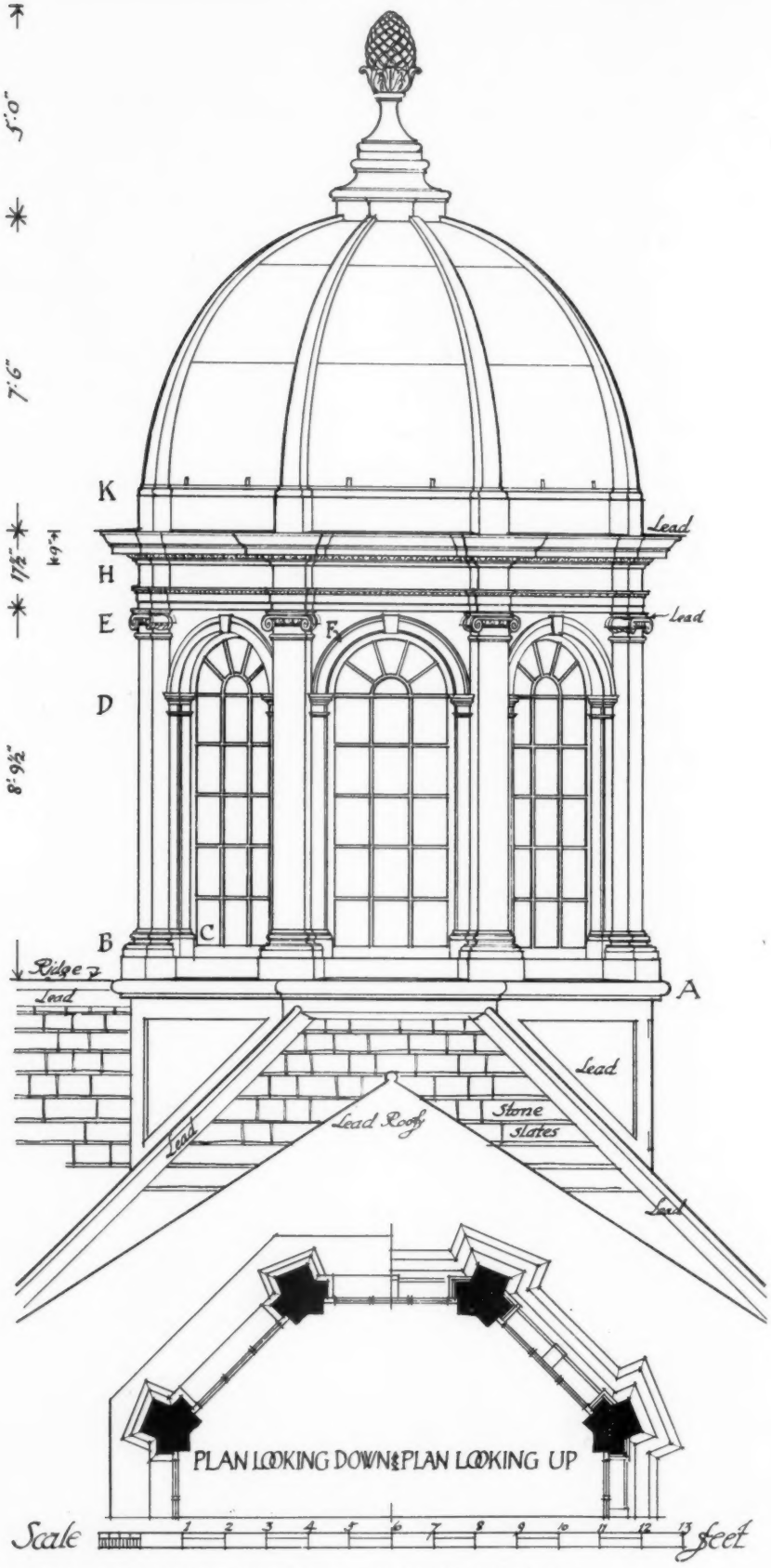


CUPOLA, CLARE COLLEGE, CAMBRIDGE.

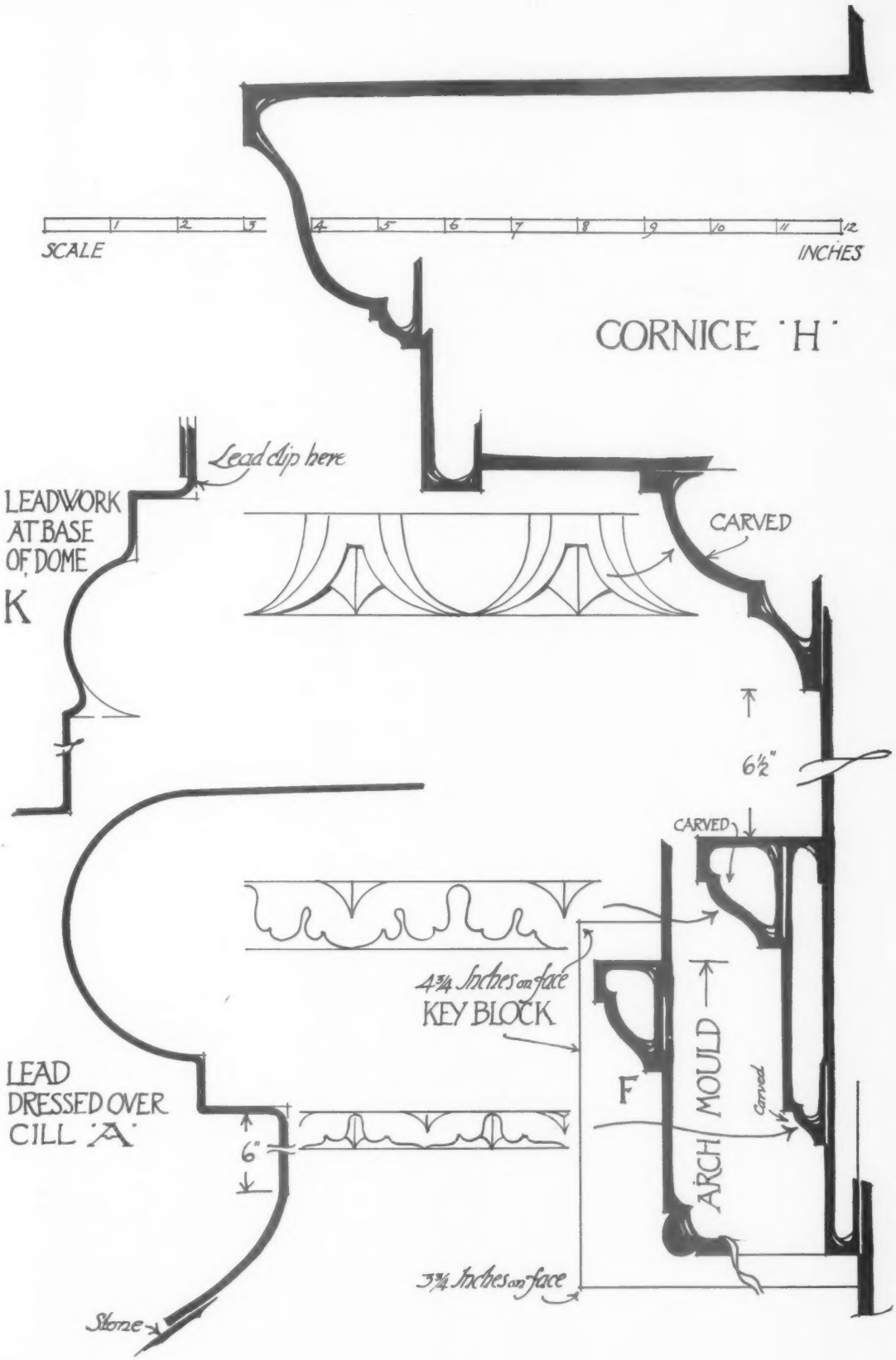
MEASURED AND DRAWN BY G. HERBERT PARRY.

Telephoto: Arch. Rev.

CUPOLA, CLARE COLLEGE, CAMBRIDGE.



CUPOLA, CLARE COLLEGE, CAMBRIDGE. ELEVATION AND PLAN.
MEASURED AND DRAWN BY G. HERBERT PARRY.



CUPOLA, CLARE COLLEGE, CAMBRIDGE. DETAILS.

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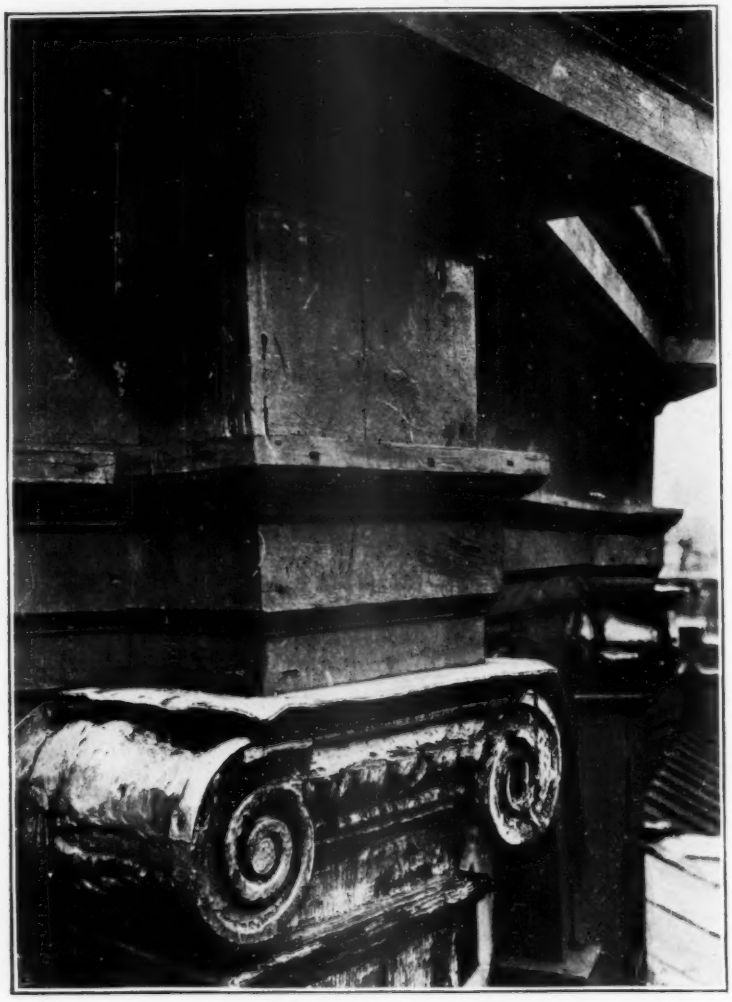
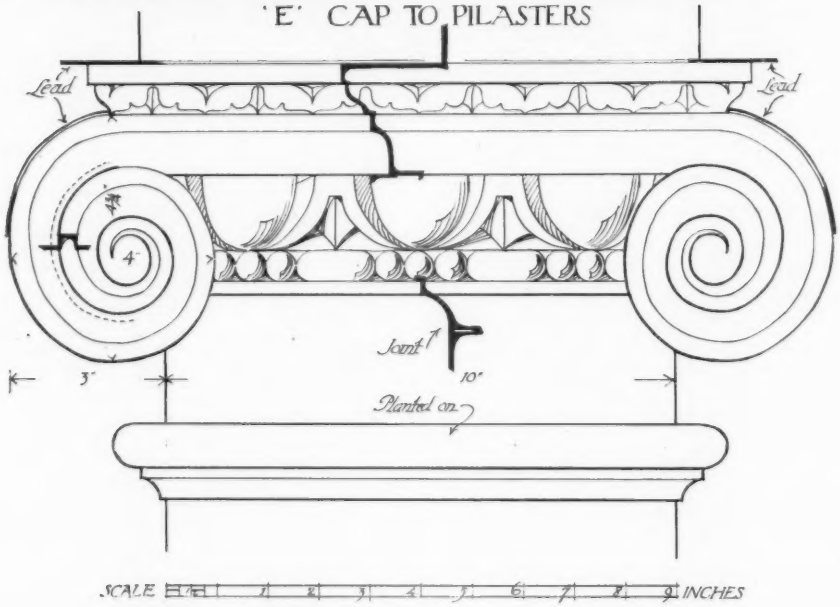


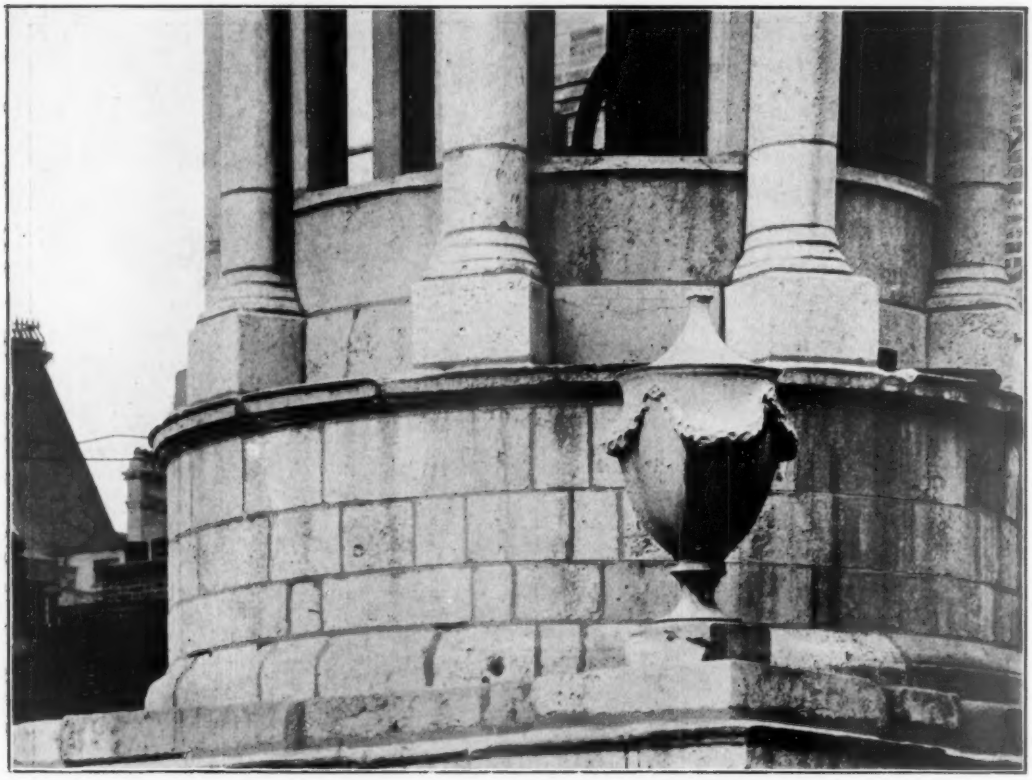


CUPOLA, CLARE COLLEGE, CAMBRIDGE.

PILASTER CAPITAL. VIEW AND DETAIL.

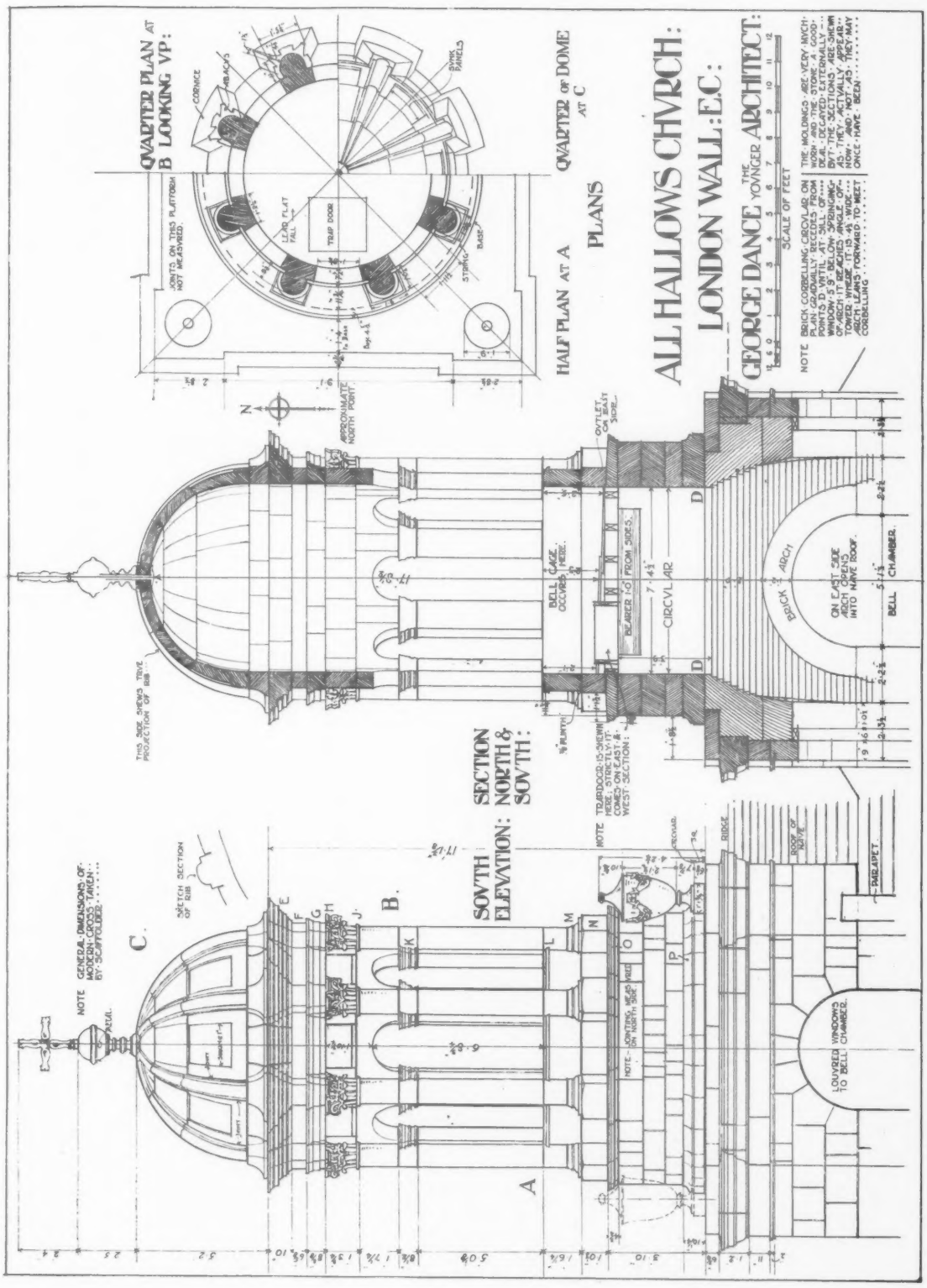
Photo: E. Dockree.

CUPOLA, ALL HALLOWS, LONDON WALL.

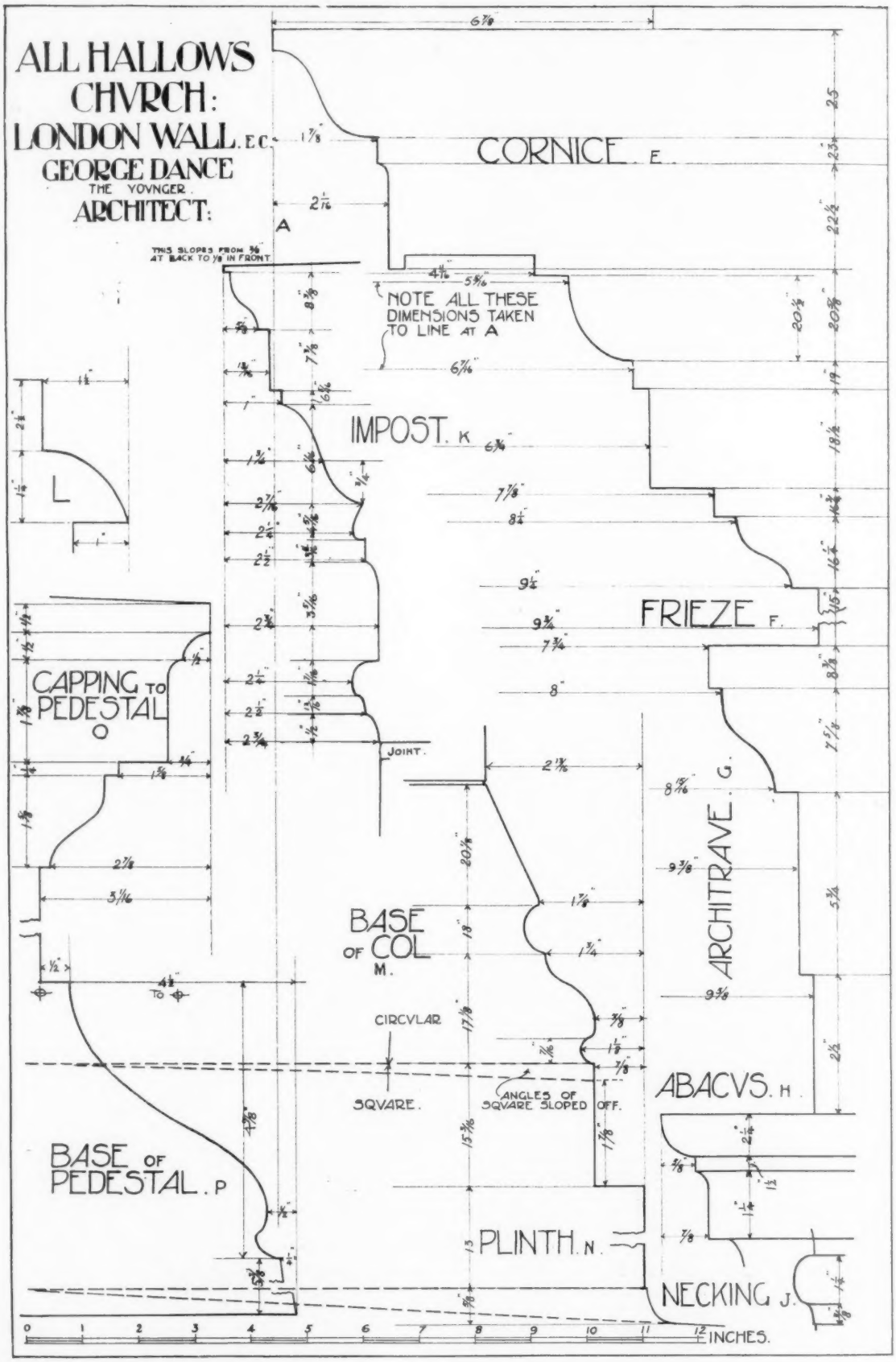


Photos: Arch. Rev.

CUPOLA, ALL HALLOWS, LONDON WALL.
DETAIL VIEW OF UPPER AND LOWER PART.



CUPOLA, ALL HALLOWS, LONDON WALL.



CUPOLA, ALL HALLOWS, LONDON WALL.

Current Architecture.

"HALLYBURTON," COUPAR-ANGUS, FIFESHIRE.—Of the original house of "Hallyburton" practically nothing remains; the main portion of the existing house was built thirty years ago, and the plan shows the additions recently carried out for W. G. Graham Menzies, Esq., the elevators being treated in a somewhat similar manner to those existing. The dining-room takes the place of a smaller room that along with some servants' offices was removed. When the proportions of the new dining-room had been roughly settled, but before it was built, the tapestries shown in the illustrations were purchased in Paris, the finishings and electric-light fittings, etc. for the room were then designed, and the work carried out as shown. The ceilings, walls, and floors are of Austrian oak, fumed and dry-waxed. The walls of the corridor, business-room, and billiard-room are also carried out in oak. The house is built of stone from the estate quarry, with a space and a brick lining. The floors are Stuart's granolithic fireproof floors. Messrs. John Watherston & Sons, of Edinburgh, were the general contractors for the work, and they also carried out the oak work. The heating was executed by Messrs. Mackenzie and Moncur, Ltd., of Edinburgh. The ceiling of the business-room, etc. was carried out by the Bromsgrove Guild, and the electric-light fittings were also executed by them from the designs of the architect, Mr. R. S. Lorimer, A.R.S.A.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.—These rooms illustrated had originally plastered walls, papered. They have been panelled and decorated from designs by Messrs. W. Dunn and R. Watson, of 35, Lincoln's Inn Fields, London. The work was carried out by Messrs. J. K. Cooper & Sons, of Castle Hill, Maidenhead. The models for plaster wreaths and cornices and the whole of the

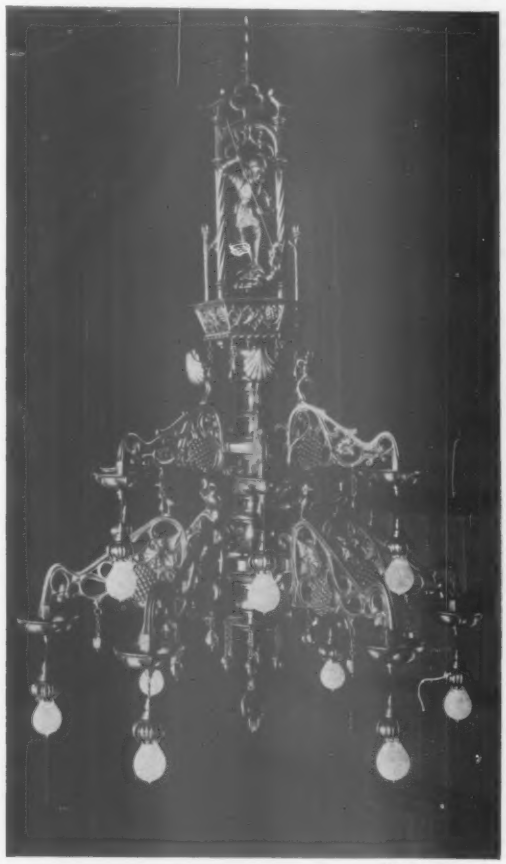


Photo: T. Lewis.

ELECTRIC FITTINGS AT "HALLYBURTON," FIFESHIRE.

R. S. LORIMER, ARCHITECT.

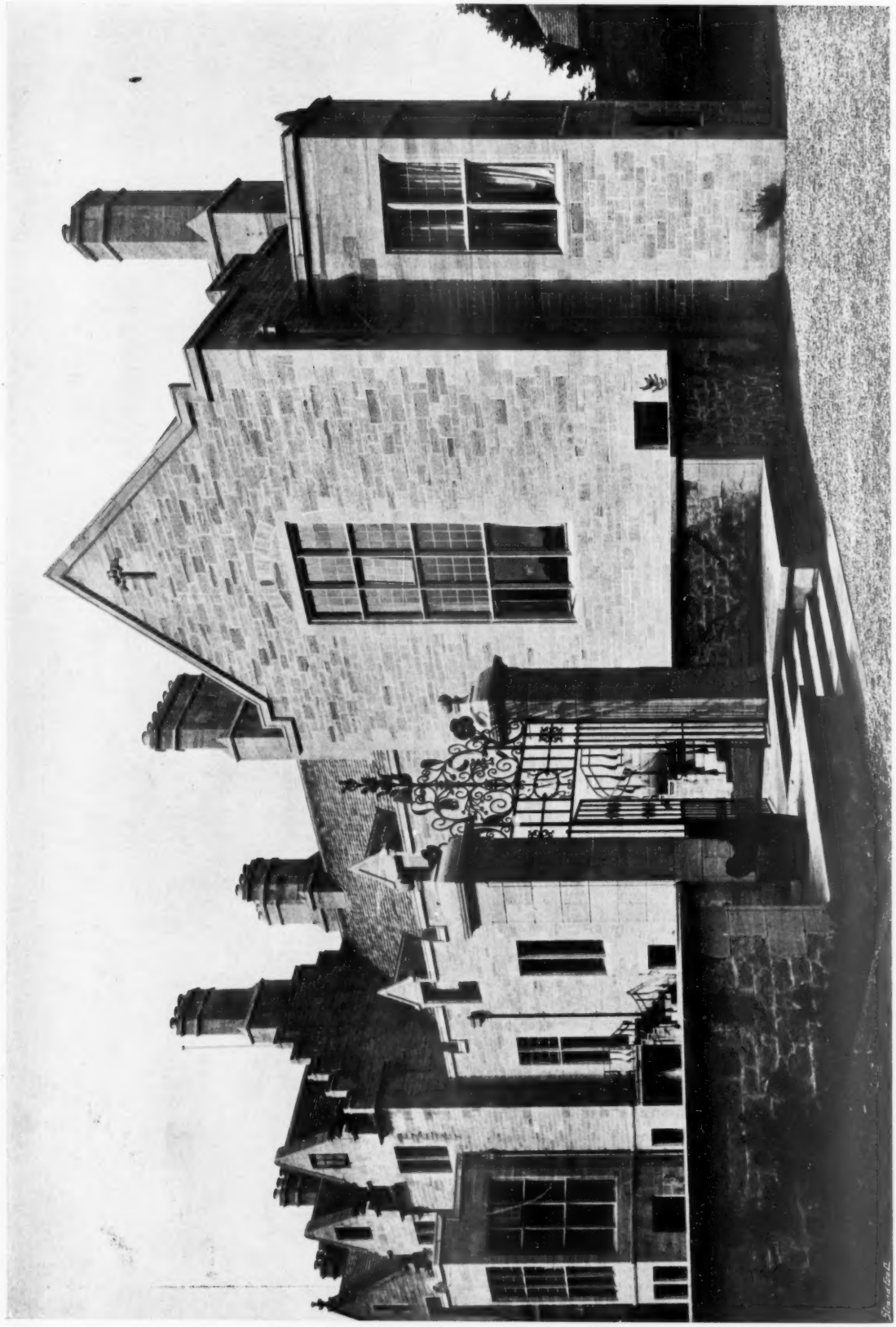


Photo: Belford Lemere & Co.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. R. S. LORIMER, A.R.S.A., ARCHITECT.

Photo: Bedford Lemere & Co.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. THE DINING-ROOM.

R. S. LORIMER, A.R.S.A., ARCHITECT.

Photo: Bedford Lemere.

ADDITIONS TO "HALLYBURTON," FIFESHIRE.

R. S. LORIMER, A.R.S.A., ARCHITECT.

carving were executed by Mr. W. Aumonier, of New Inn Yard, London, W. The whole of the carving and woodwork is in yellow pine, the marble jambs of the chimneypieces being cipollino. The walls and ceilings are all painted and white flatted. The small key plan on p. 178 shows the position and sizes of these rooms. The building is heated on Milne's Duplex system.

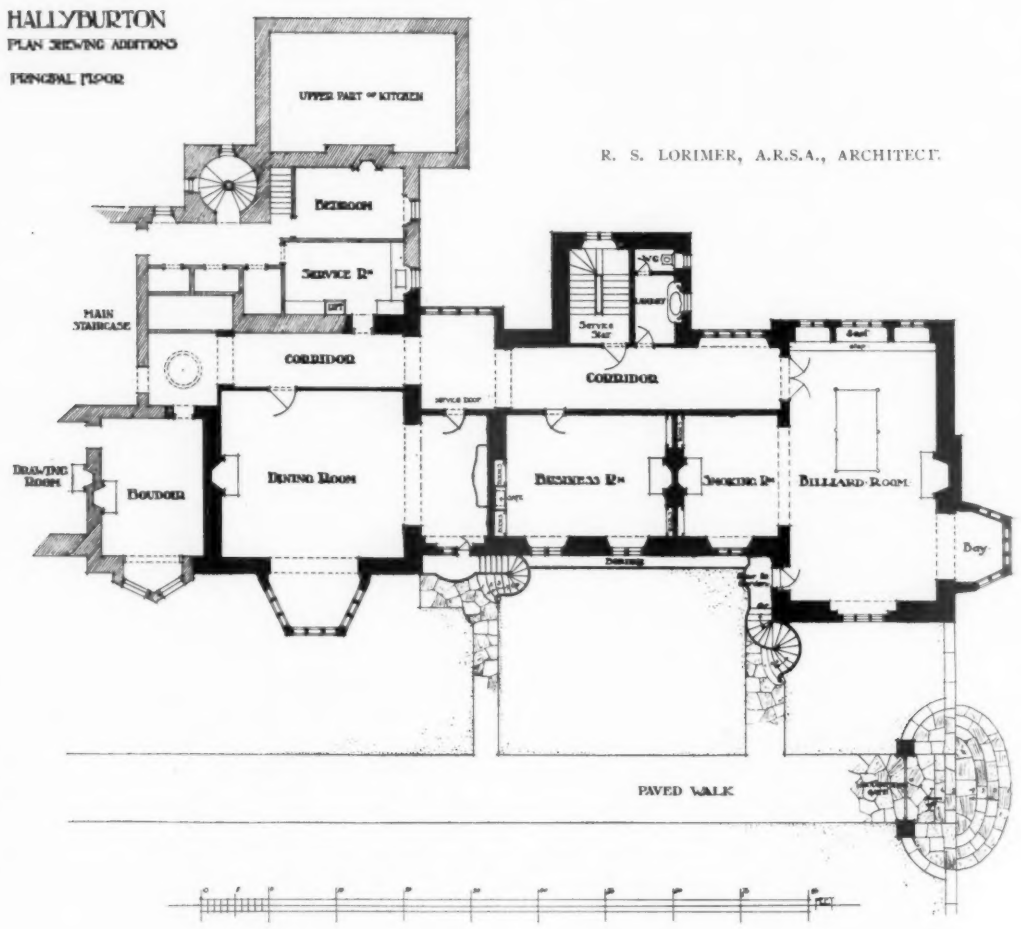
"THE OLD POUND HOUSE," WIMBLEDON. This house was built in 1902 for Frank Bullock, Esq., by Messrs. Hubbard & Moore, architects, The building is situated at the corner of two roads, the western front facing the "Old Pound" on Wimbledon Common and the southern aspect facing Park Side Gardens. The four reception-rooms have therefore been arranged to take

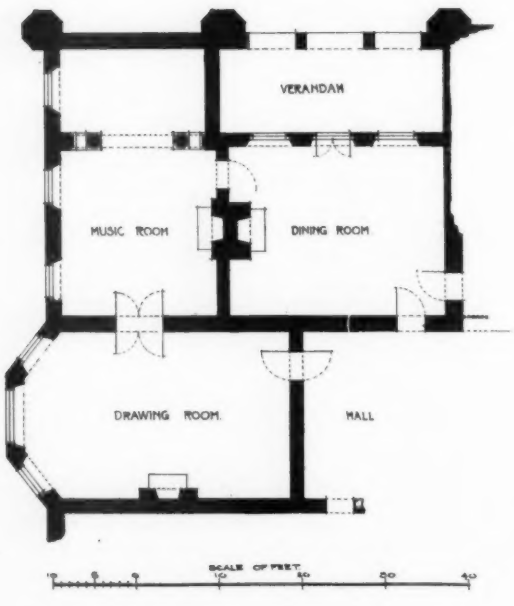
Photo: Bedford Lemere.

ADDITIONS TO "HALLYBURTON," FIFESHIRE. THE BUSINESS-ROOM.

R. S. LORIMER, A.R.S.A., ARCHITECT.

advantage of these frontages. Privacy is obtained by the frontage line of the main building being set back a considerable distance from the road boundaries, and the building is further protected by the foreground of trees which are preserved behind a high boundary wall. The plan adopted is a parallelogram having the main entrance towards the centre of the western façade, with hall and staircase centrally situated at the rear. By this arrangement all the reception-rooms are entered directly from the central hall, and communication between the house and the kitchen is distinct. The principal bedrooms on the first floor are over the ground-floor reception-rooms, with access to them from a wide central landing over the hall below. The bath-room, lavatory, w.c.,





ALTERATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.

W. DUNN AND R. WATSON, ARCHITECTS.

and housemaid's sink are separately situated in a "sanitary" block apart from the bedrooms, and yet convenient of access from them. The attics have two bedrooms for visitors and two for servants, and also contain a housemaid's closet, box-room, and tanks. The materials used in the elevations are grey-red brindled facing bricks from Crowborough, Kent, with dark red bricks to the arches, quoins, chimney-tops, devices, etc. The tiles are dark brown hand-made Broseley. The outside shutters are painted dark green and all other woodwork white. All the interior panelling, chimney-pieces, book-cases, linings, and architraves are finished in white enamel, and oak has been used for the main staircase and floors in the hall, reception-rooms, and corridors. The vestibule and lavatories, etc., are in black and white Sicilian marble. The general contractor for the work was Mr. F. G. Minter, of Ferry Works, Putney. Messrs. Hill & Smith carried out the wrought-iron gates and railings. Messrs. A. How & Co. carried out the electric-light and bell-wiring and fittings, Messrs. W. Morris & Co. the special glazing, and Mr. J. Gibbons the locks and fastenings.

Photo: E. Dockree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.

THE MUSIC-ROOM CHIMNEYPIECE.

W. DUNN AND R. WATSON, ARCHITECTS.

Photo: E. Peckree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.

THE MUSIC-ROOM FROM THE DRAWING-ROOM.

W. DUNN AND R. WATSON, ARCHITECTS.

Photo: E. Dockree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD. THE DINING-ROOM.

W. DUNN AND R. WATSON, ARCHITECTS.

Photo: E. Dockree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.

THE DRAWING-ROOM CHIMNEYPIECE.

W. DUNN AND R. WATSON, ARCHITECTS.

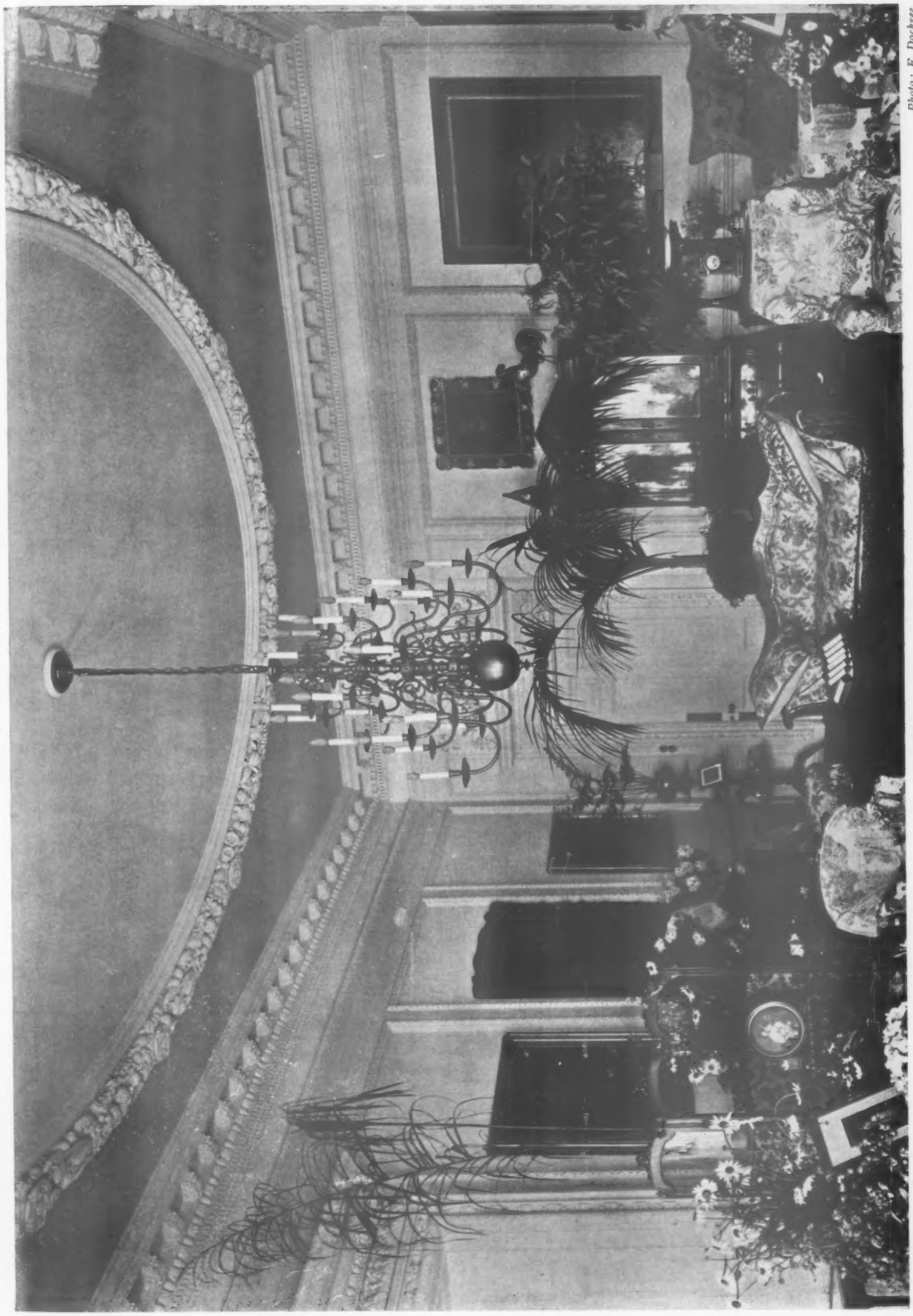
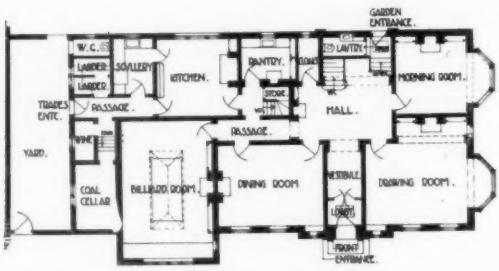


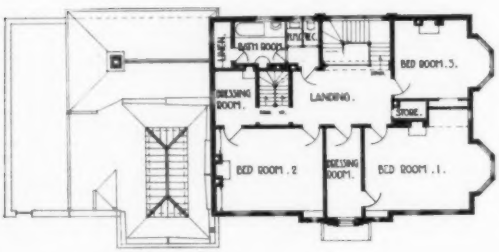
Photo: E. Dockree.

ALTERATIONS AND DECORATIONS AT SHOTTESBROOKE PARK, MAIDENHEAD.
THE DRAWING-ROOM.
W. DUNN AND R. WATSON, ARCHITECTS.

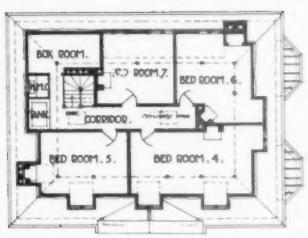
"THE OLD POUND HOUSE," WIMBLEDON. THE HALL.
HUBBARD AND MOORE, ARCHITECTS.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

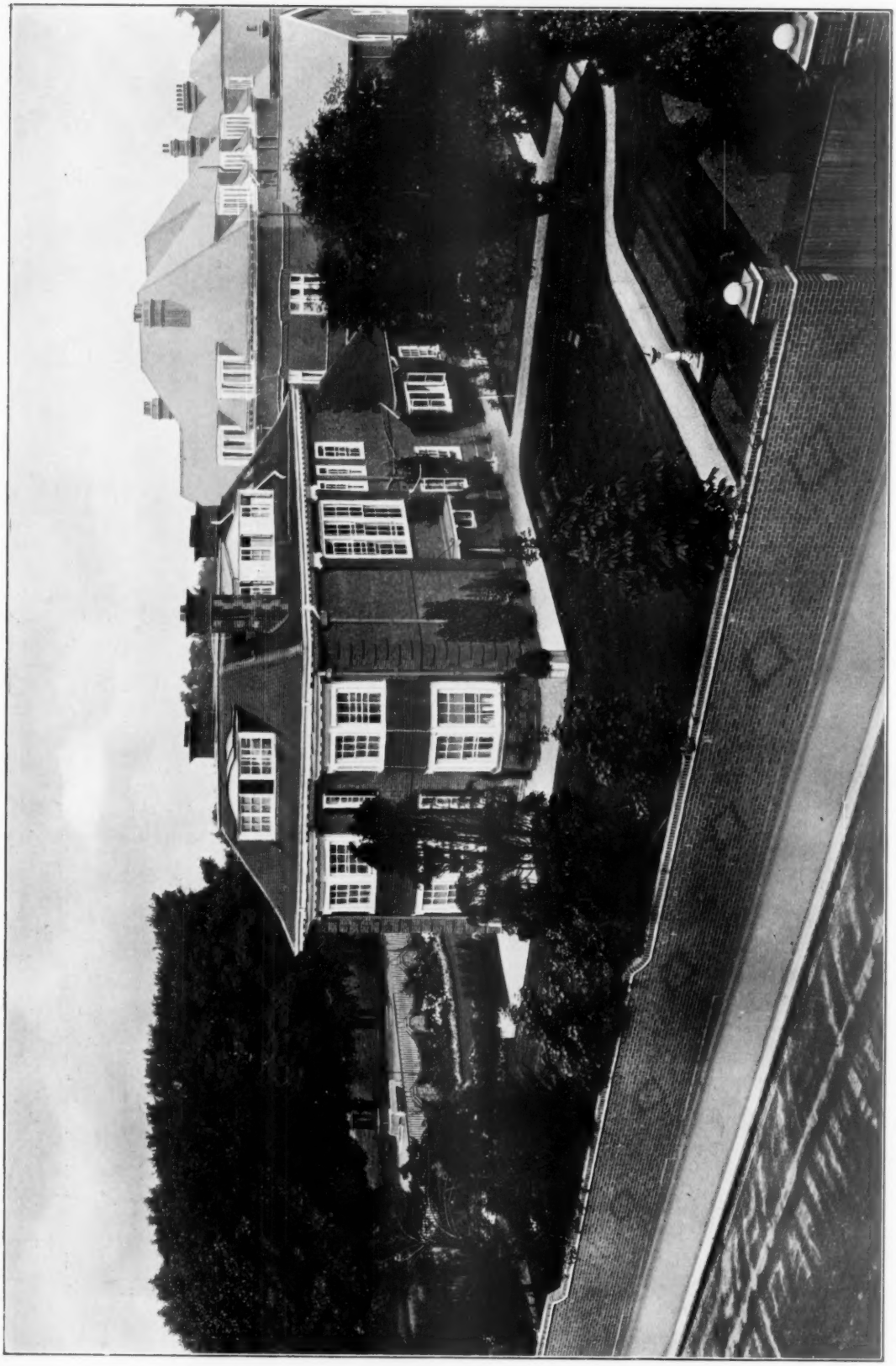


ATTIC FLOOR PLAN

SCALE OF FEET.

"THE OLD POUND HOUSE," WIMBLEDON.
PLANS.

"THE OLD POUND HOUSE," WIMBLEDON. ENTRANCE FRONT.
HUBBARD AND MOORE, ARCHITECTS.



"THE OLD POUND HOUSE," WIMBLEDON. SIDE AND GARDEN FRONTS.
HUBBARD AND MOORE, ARCHITECTS.

THE BELFAST CITY HALL.

Photo: A. R. Hogg.

A. BRUMWELL THOMAS, Architect.

Photo: A. R. Hogg.

GENERAL VIEW OF THE BUILDING.

The Belfast City Hall.

THE City Hall stands in the centre of Donegall Square, and covers an area of about an acre and a half of the gardens in the centre of the square. The building is designed in quadrangular form, with an internal courtyard, in the style of the Classic Renaissance, carrying on the traditional architecture of the seventeenth and eighteenth centuries.

The commanding situation of the building, and the sense of space about the square, lend a dignity and magnificence to the structure which may be said to be without parallel throughout the kingdom, and the added charm of a flower garden bordering the principal public streets brings a sense of restfulness and repose seldom attained in a great commercial city.

Since the removal of the Old Linen Hall, which formerly occupied practically the whole of the site, the council have had under consideration not only the building of a City Hall, but the laying out of the principal square of the city, of which the building forms the centre, conforming in proportion to its situation within the square, and at the same time dominating the whole of the city.

A view of the square from a position outside the city will show how important a place the dome and towers of the City Hall take in the general architecture of the city.

The grounds surrounding the building are laid out in the form of a public garden, in which are placed groups of statuary, the central group representing Queen Victoria, with bronze figures on either side of the marble pedestal denoting Shipbuilding and Spinning, by Mr. Thomas Brock, R.A.

A statue to Sir Edward Harland and the Royal Irish Rifles War Memorial stand to the left of the Queen's Memorial.

In the West Garden stands the memorial to the first Marquess of Dufferin, with a bronze figure under a stone canopy, and a bronze group on either side representing Canada and India, the joint work of Mr. Frederick Pomeroy, A.R.A., and myself.

The main façade of the building is 300 ft. long, and the sculpture in the great pediment at the centre, by Mr. Pomeroy, represents Hibernia wearing a mural crown, bearing the torch of knowledge, a symbol of light and advancement, her right hand resting on the harp, the emblem of her nationality. To the right stands Minerva, attended by Mercury the Messenger, to whom Industry and Labour are looking for prosperity. On the left stands Liberty, awarding the palm branch to Industry, a female figure offering a roll of finished linen; at her feet sits another figure with the Irish spinning wheel, while the youth and energy of the country are expressed by the boys' figures watching intently the passing events. The other industries are represented by figures typifying Shipbuilding, Design, etc.

The external façades are enriched with an Ionic order of columns above a heavily rusticated basement storey, surmounted by an entablature and balustrade reaching a height of 55 ft. above the ground. Above the parapet, at the four corners of the building, the four angle towers rise to a height of 115 ft.

The crowning feature of the building is the great peristylular dome over the grand entrance. It reaches a total height of 173 ft., terminating with a stone lantern above the copper dome.

The building provides accommodation for the officials and their staffs of all departments engaged in the work of the city, and also includes a grand suite of reception rooms for civic functions, and a private suite of rooms for the use of the Lord Mayor.

Reference to the plans will explain the grouping of the various departments in the building, and it will be seen that the arrangement of each room in connection with its department, and of the departments in connection with one another, has all been designed to facilitate the intercommunication between one department and another in a manner that should lead to economy in the administration of the business of the council within the hall, and also in relation to the public. It will be seen that the ground floor is occupied by the town clerk's department, the city surveyor's department, and the city cashier's department, with the addition of two rooms for the payment of rates—one being for the use of the gas department and the other for the accountant's department. On the first floor are placed the suite of principal rooms and the Lord Mayor's private suite, with a number of departments facing Donegall Square South, including the city accountant's, the medical officer's, the electrical engineer's, and the gas department; the upper floor being allocated to the education,

works, markets, and weights and measures departments.

A fine impression of the interior of the building is gained on entering the entrance hall, which is approached through the stone porte-cochère and the octagon vestibule. It is 70 ft. by 40 ft., and rises to a height of over 100 ft., terminating in the dome 42 ft. in diameter. The walls of the ground floor are of Pavonazzo and Brescia marbles with a black marble plinth, the paving in the hall being black and white marble with a radiating centrepiece.

The grand staircase is approached from the entrance hall, and is in Carrara, Pavonazzo, and Brescia marbles, the domical ceiling being treated with modelled plaster-work. The staircase is lighted by a range of seven three-light windows filled with stained glass, in which the successive stages in the history of the corporation have been portrayed, starting with the date of the original charter, and giving the names of the first sovereign and the twelve burgesses whose names appear on the charter.

In the three windows over the landing are placed the arms of Belfast in the centre, with a portrait of the King and Queen on either side, the lunette in the tympanum of the main arch being emblazoned with the royal arms of the date of the incorporation of Belfast.

Ascending to the first floor, the principal landing is reached, from which an adequate view of the dome is obtained; this landing is enriched with marble work of similar design to the entrance hall below, but with the addition of a colonnade of Greek cipollino marble, with white statuary marble caps and bases on a plinth of black marble. Above this colonnade rise the four main arches, on which the drum of the dome is developed, and, above the whispering gallery, the range of nine peristyle windows is filled with stained glass, showing the signs of the zodiac alternately with the ship and bell which form quarters of the Belfast arms, the whole area being covered with an elaborately panelled dome, enriched with modelled plaster-work of fine design and workmanship, and above the eye of the dome a secondary miniature dome rises on a circular colonnade.

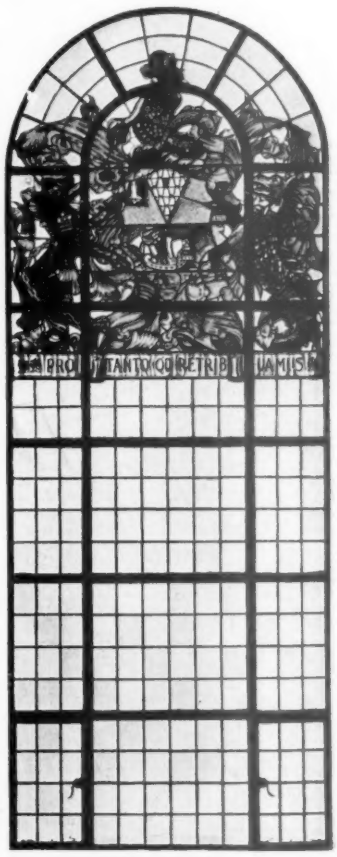
From the centre of the dome is suspended the large bronze electrolier of 100 lights, enriched with cast bronze decorative figure-work giving support to the clusters of electric lamps.

Staircases are provided at either end of the dome, giving access to the whispering gallery, peristyle, and lantern, from each of which a fine view of the city is obtained.

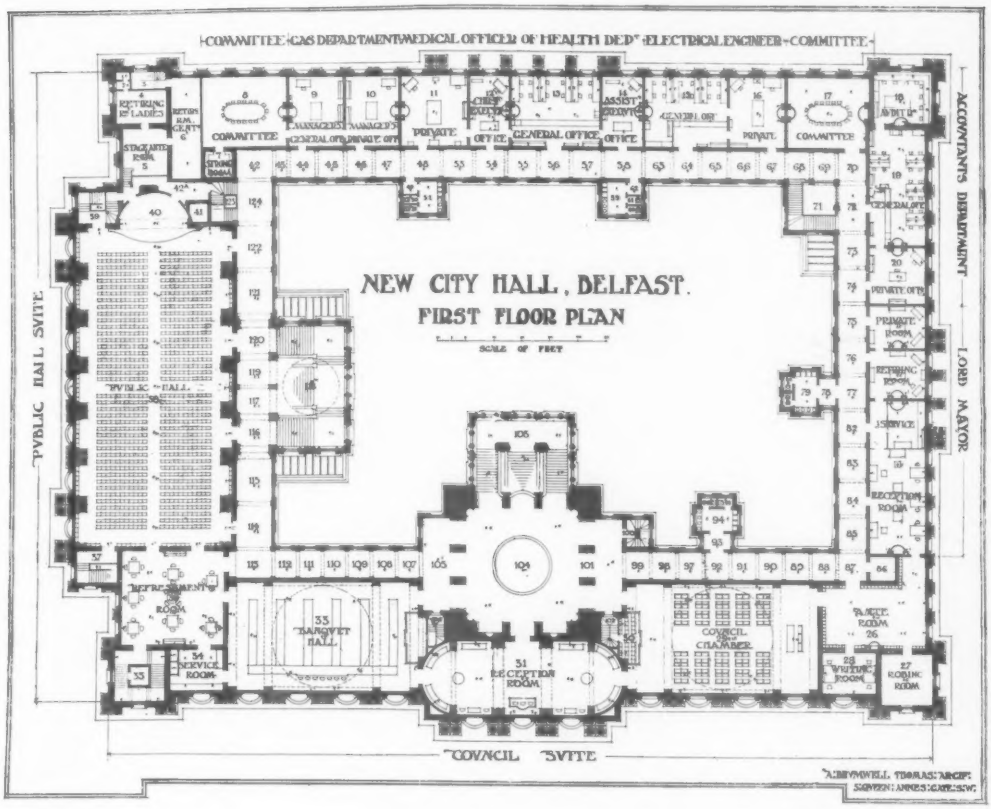
The reception room is approached by ascending the grand staircase and crossing the landing under the dome. It is an apartment 70 ft. long by 26 ft. wide, spanned by a barrel vault, terminating at either end by panelled semi-domes, the whole ceiling being enriched with modelled plaster-work. The three windows are filled with stained glass, showing the arms of the city, with the royal arms of Edward VII. and the arms of Lord Chichester on either side. The entablature, which is 17 ft. above floor level, is supported by Ionic columns with enriched capitals, etc., and the walls are panelled in wainscot oak.

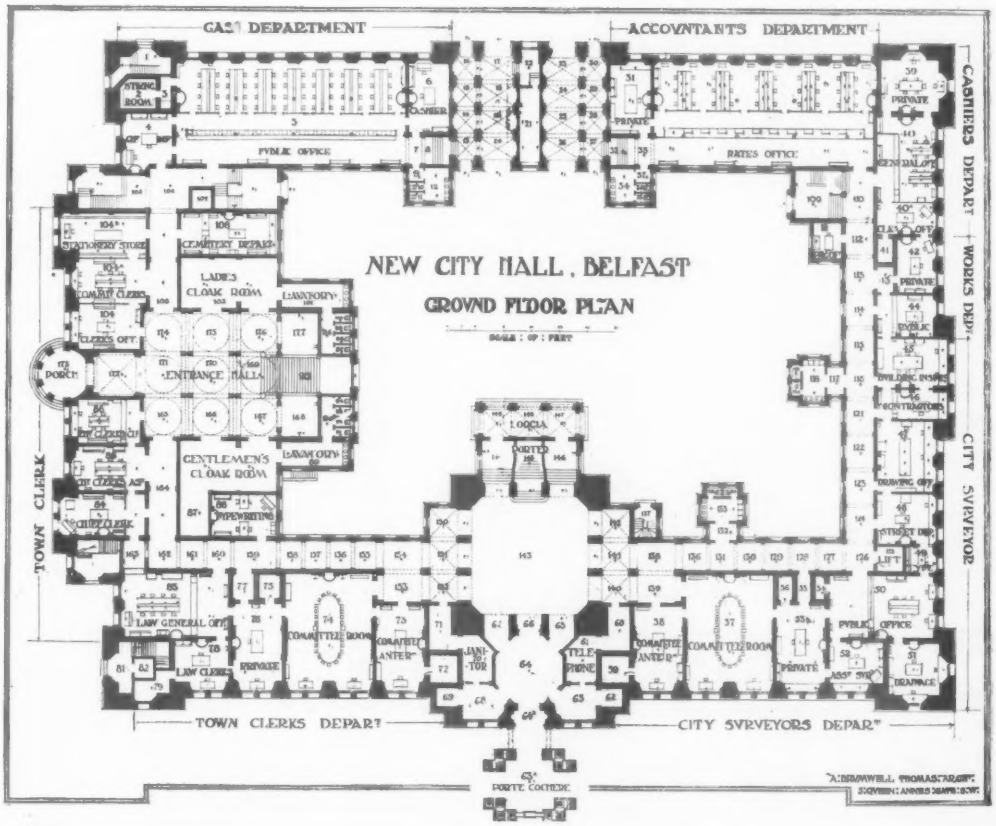
Communicating with the reception room is a banqueting hall, 68 ft. long by 38 ft. wide, surmounted by a dome rising to a height of 36 ft., the vaults and domed ceiling being enriched with modelled plaster-work. The walls are panelled to a height of 9 ft. in wainscot oak enriched with carving, and the windows are filled with stained glass showing the royal arms, the arms of Belfast, and the arms of Lord Donegall and Lord Shaftesbury.

The council chamber also communicates with the reception room, and is 68 ft. long by 38 ft. wide, the centre bay having arches springing from piers 17 ft. high, terminating in a dome of original treatment in modelled plaster, the two end bays having curved panelled vaults. The wainscot oak panelling in this room is enriched with carving, as are also the balconies for the public and the press. The seating for the members of the council is arranged on the House of Commons principle, having a centre gangway 10 ft. wide, at one end of which is placed the raised dais, with an oak screen with three carved and pierced panels forming a background for the Lord Mayor's chair. The whole of the members' seats, etc., are covered with green



THE CENTRAL WINDOW.


COMMITTEE · GAS DEPARTMENT · MEDICAL OFFICER OF HEALTH DEPT · ELECTRICAL ENGINEER · COMMITTEE ·
ACCOUNTANTS DEPARTMENT
LORD MAYOR
PUBLIC HALL SUITE
NEW CITY HALL, BELFAST.
FIRST FLOOR PLAN
SCALE OF FEET
PUBLIC HALL
33 BANQUET HALL
31 RECEPTION ROOM
COUNCIL CHAMBER
COUNCIL SUITE
ALBERT WELL, THOMAS & AGER, ARCHITECTS, SURVEYORS, ANNES GATE, S.W.


GAS DEPARTMENT
ACCOUNTANTS DEPARTMENT
CASHIERS DEPART · WORKS DEPT · CITY SURVEYOR
TOWN CLERK
NEW CITY HALL, BELFAST
GROUND FLOOR PLAN
PUBLIC OFFICE
RATES OFFICE
ENTRANCE HALL
LOGGIA
GENTLEMEN'S CLOAK ROOM
LADIES CLOAK ROOM
TOWN CLERKS DEPART
CITY SURVEYORS DEPART
PORTE COCHERE
ALBERT WELL, THOMAS & AGER, ARCHITECTS, SURVEYORS, ANNES GATE, S.W.

morocco leather, stamped with the city arms in gold.

The stained glass in the windows shows the royal arms, the Belfast arms, and the arms of Lord Dufferin and Lord Londonderry.

Adjoining the council chamber is the members' ante-room (in which each member is provided with a private locker), with retiring room, robing room, etc., directly connected with the council chamber.

The suite of principal rooms, including the council chamber, the banqueting hall, and the reception room, terminates in the great hall, which is 120 ft. long by 57 ft. wide, covered with a vaulted ceiling rising to about 40 ft. above the floor. The entablature, which is 23 ft. above the floor, is supported by a range of coupled Corinthian columns. The room is lighted with seven stained glass windows, in three of which are shown the portraits of the sovereigns who have visited Belfast, viz., King William III, Queen Victoria, and King Edward VII, and in the remaining four the shields of the provinces of Ireland.

The hall will accommodate an audience of 1,000 persons, and includes a gallery at one end which will accommodate 250, with a stage for concert performances at the other end. Immediately behind the stage are ranged the retiring rooms for performers with a separate entrance from the street, and there is a large refreshment room adjoining the hall, with servery, kitchen, etc.

The cloak-room accommodation in connection with the hall is arranged on the ground floor leading out of the entrance hall, which is 40 ft. square, divided into bays with columns supporting arches terminating in flat saucer domes. The whole of this entrance hall is treated very simply, but the staircase leading to the first floor is executed in more elaborate form in modelled plaster-work. The hall is amply provided with exits, and in the event of a panic could be cleared in a very short time.

Leading out of the entrance hall are the two principal committee rooms, one for the Law Committee and the other for the Improvement Committee, each being 40 ft. long by 30 ft. wide and 16 ft. high. These rooms are panelled and furnished en suite in wainscot oak, with columned and pedimented chimney-pieces.

A. BRUMWELL THOMAS.

THE BELFAST CITY HALL.

A. BRUMWELL THOMAS, Architect.

FREDERICK POMEROY, A.R.A., Sculptor.

JAMES G. GAMBLE, Clerk of the Works.

H. & J. MARTIN, Ltd., Belfast, General Contractors.

Contractors' Representative, THOMAS LEISHMAN.

SUB-CONTRACTORS.

Heating and Ventilation—ASHWELL & NESBITT, Ltd., London.
Marble Work—FARMER & BRINDLEY, London.
Constructional Steel Work—CLYDE STRUCTURAL IRON CO.; P. & W. M'LELLAN, Glasgow.
Stained Glass—WARD & PARTNERS, Belfast; CAMPBELL BROTHERS, Belfast.
Plaster Work—GEORGE ROME & CO., Glasgow.
Modelling—THE BROMSGROVE GUILD, Bromsgrove.
Electrical Work—WILLIAM COATES & SONS, Ltd., Belfast.
Hydrants—WILLIAM COATES & SONS, Ltd., Belfast.
Lifts—WILLIAM COATES & SONS, Ltd., Belfast; THE MEDWAY LIFT CO., London.
Carving—PURDY & MILLARD, Belfast; H. H. MARTYN & CO., Ltd., Cheltenham; J. E. WINTER, Belfast.
Plumbing and Sanitary Work—JOHN DOWLING, Belfast.
Electric Fittings—J. W. SINGER & SONS, Frome.
Wrought Ironwork—FRANCIS RITCHIE & SONS, Belfast.
Clocks—GIBSON & CO., Belfast.
Strong-room Doors—MILNER & SONS, London.
Hot Water Service—MUSGRAVE & CO., Belfast.
Mosaic Pavings—DIESPEKER, Ltd., London.
Wood Block Flooring—ELLIS, GEARY & CO., London.
Safes—THOMAS SKIDMORE & SONS, Wolverhampton.
Locks, etc.—JAMES GIBBONS, Wolverhampton.
Carpets, Blinds, etc.—GILLESPIE & WOODSIDE, Belfast.
Furniture—H. & J. MARTIN, Ltd., Belfast; GOODALL, LAMB & HEIGHWAY, Ltd., Manchester; MAGUIRE & EDWARDS, Belfast; HAMPTON & SONS, London; and PARTRIDGE & COOPER, London.

Photo: A. R. Hogg.

BIRD'S-EYE VIEW.

Photo: A. K. Hugg.

THE PORTE-COCHERE AT THE GRAND ENTRANCE.

Photo: A. R. Hogg.

THE DOME FROM THE CENTRE COURT.

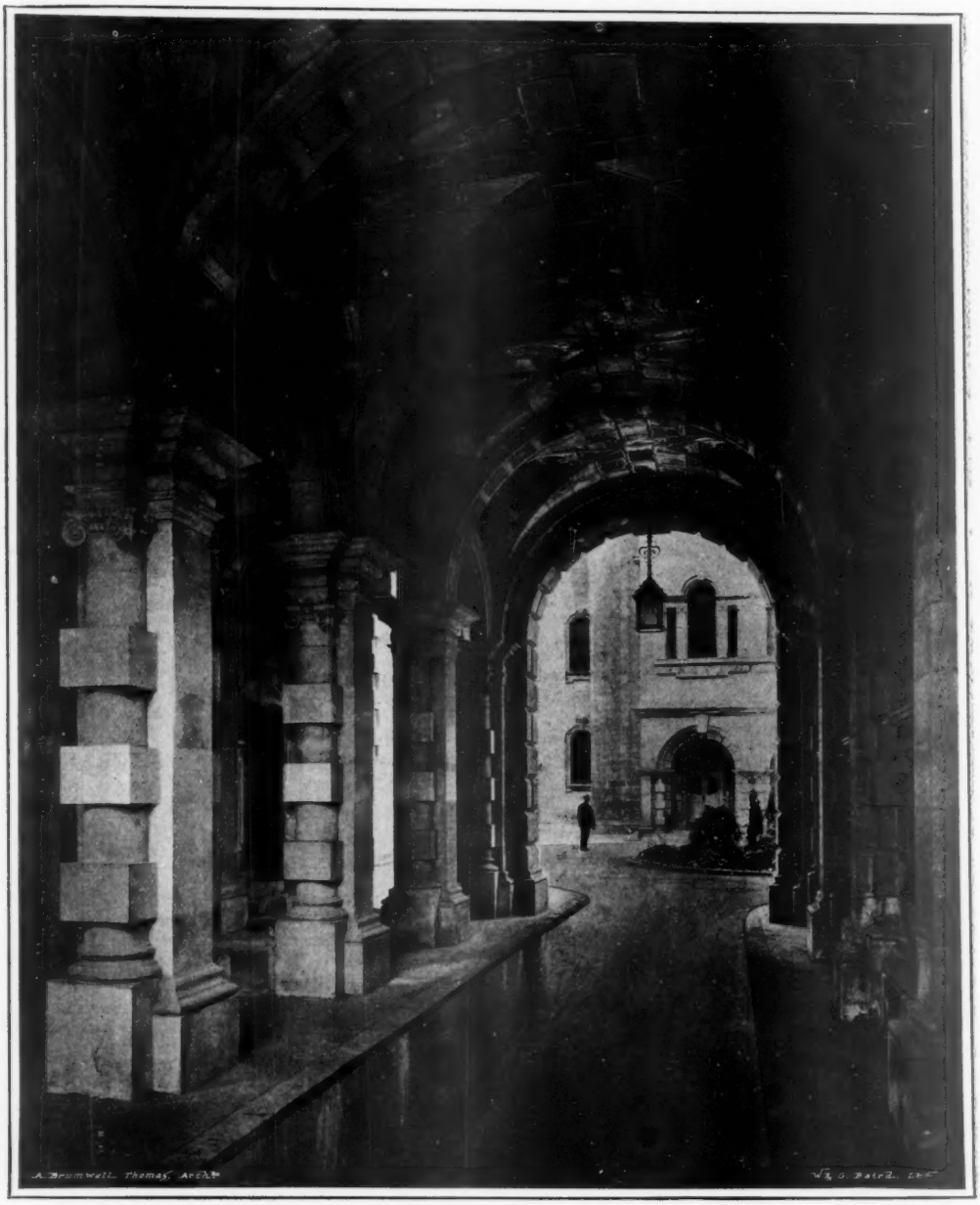


Photo: A. R. Hogg.

THE DRIVE TO THE CENTRE COURT.

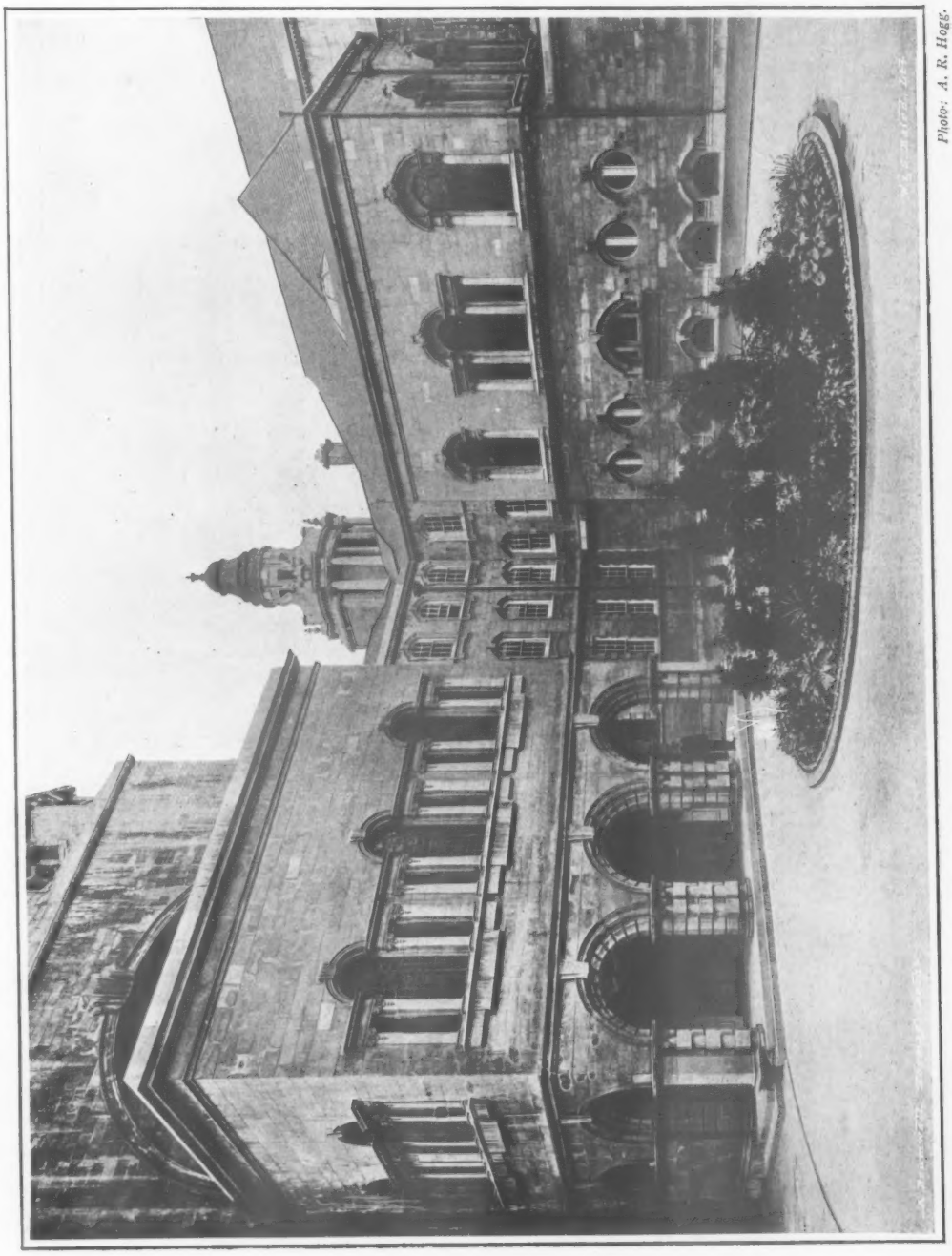


Photo: A. R. Hogg.

THE CENTRE COURT.

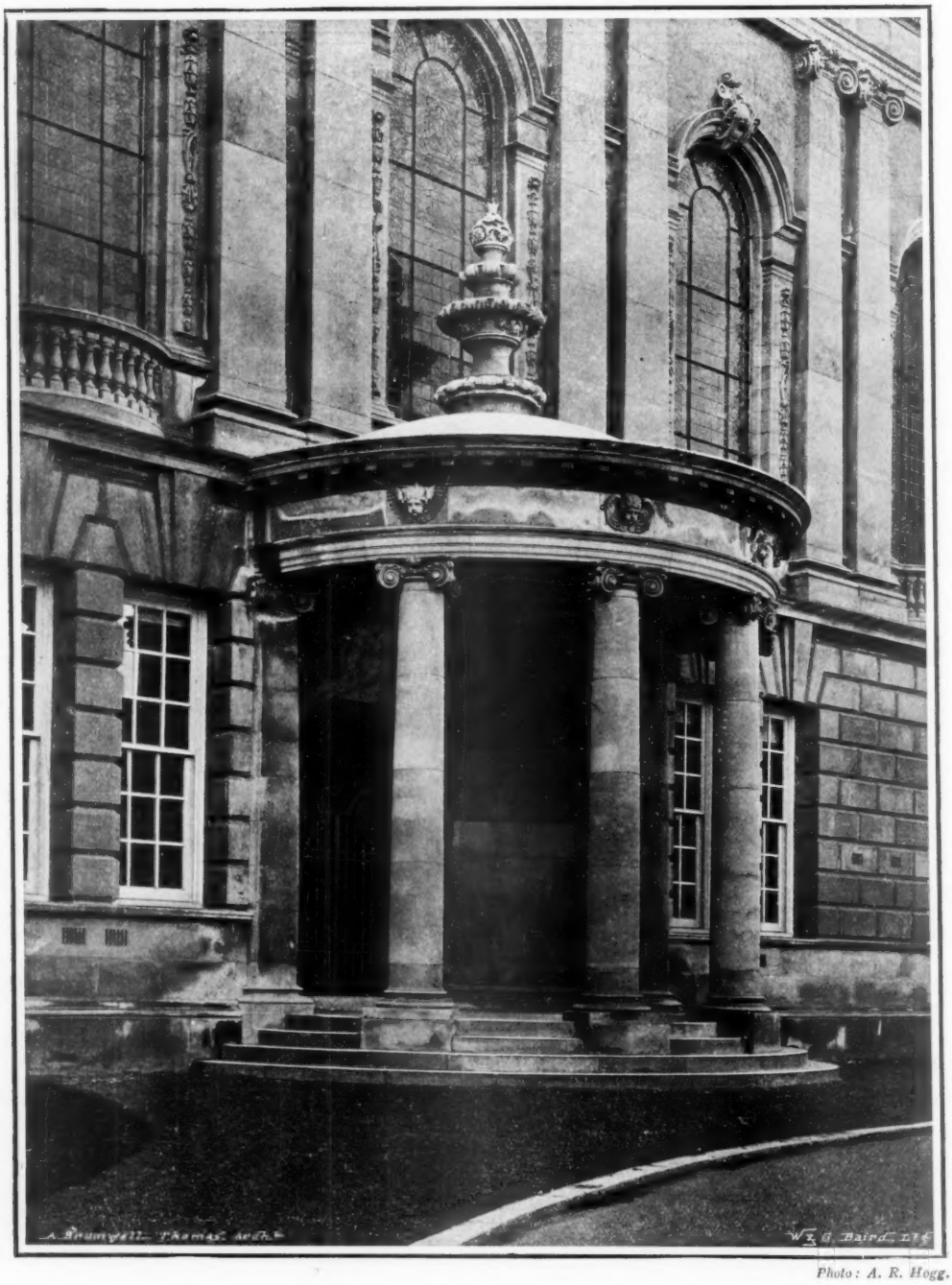


Photo: A. R. Hogg.

CIRCULAR PORCH, EAST SIDE.

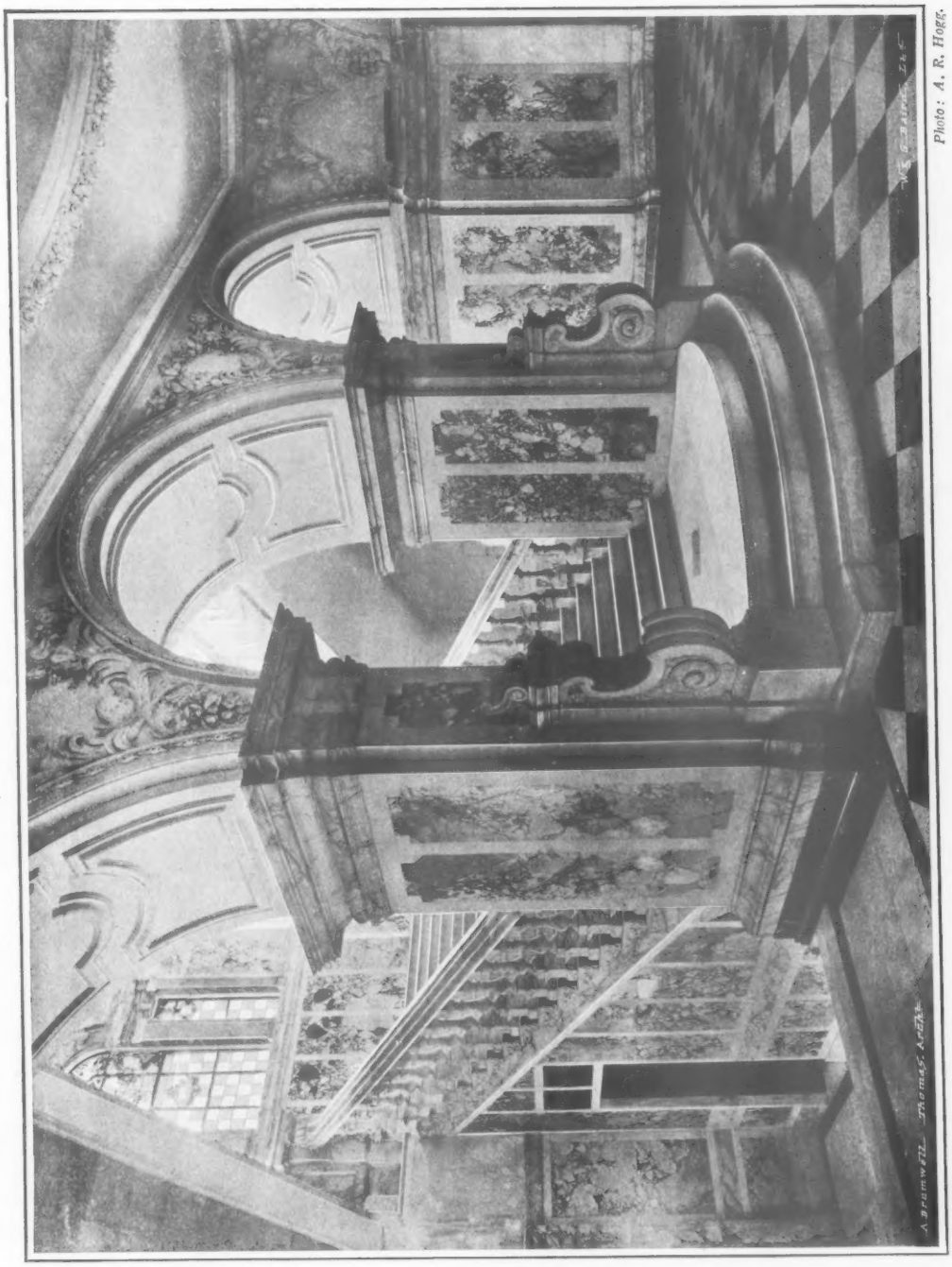


Photo: A. R. Hogg.

THE GRAND STAIRCASE.

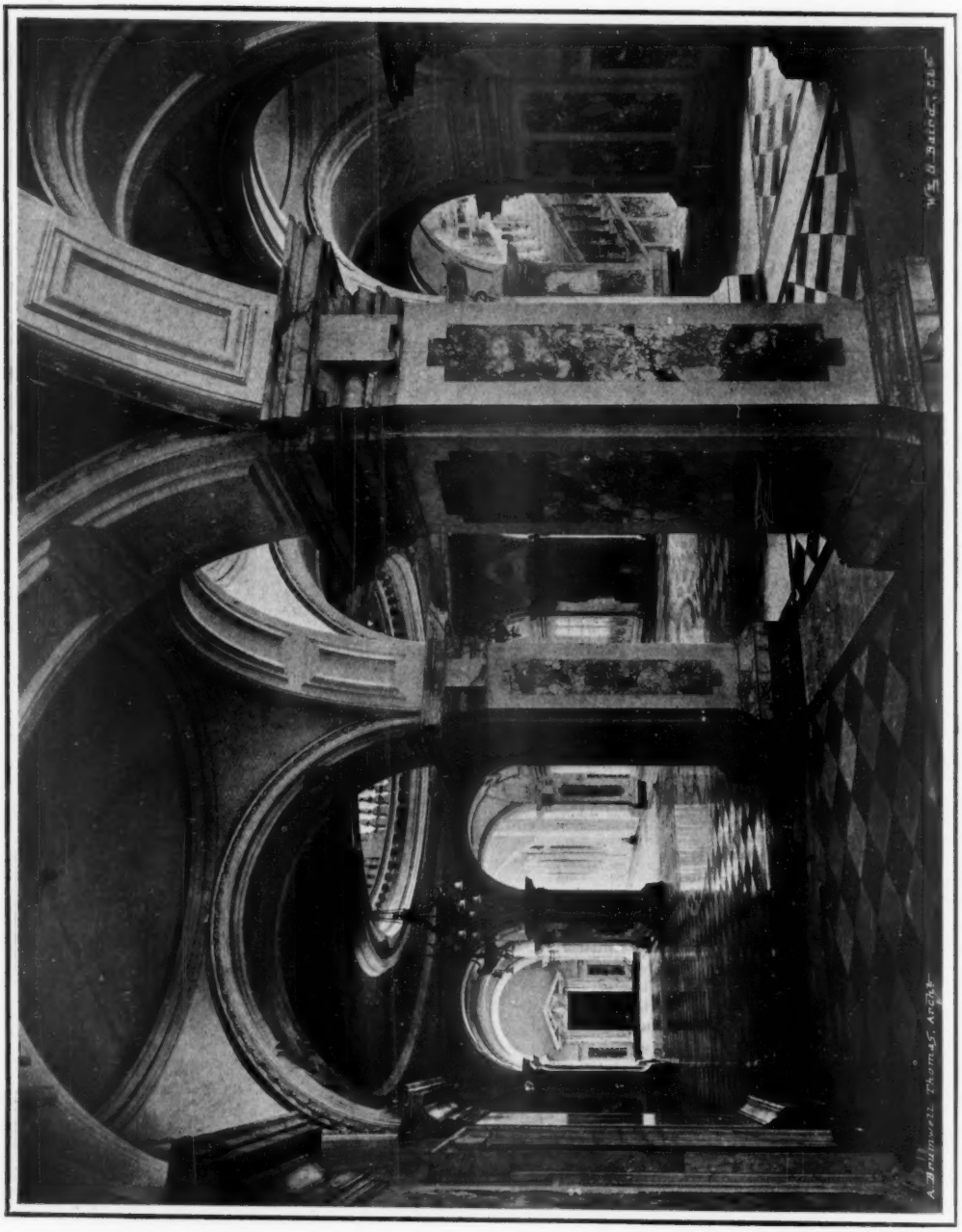


Photo: A. R. Hogg.

THE GRAND ENTRANCE HALL.

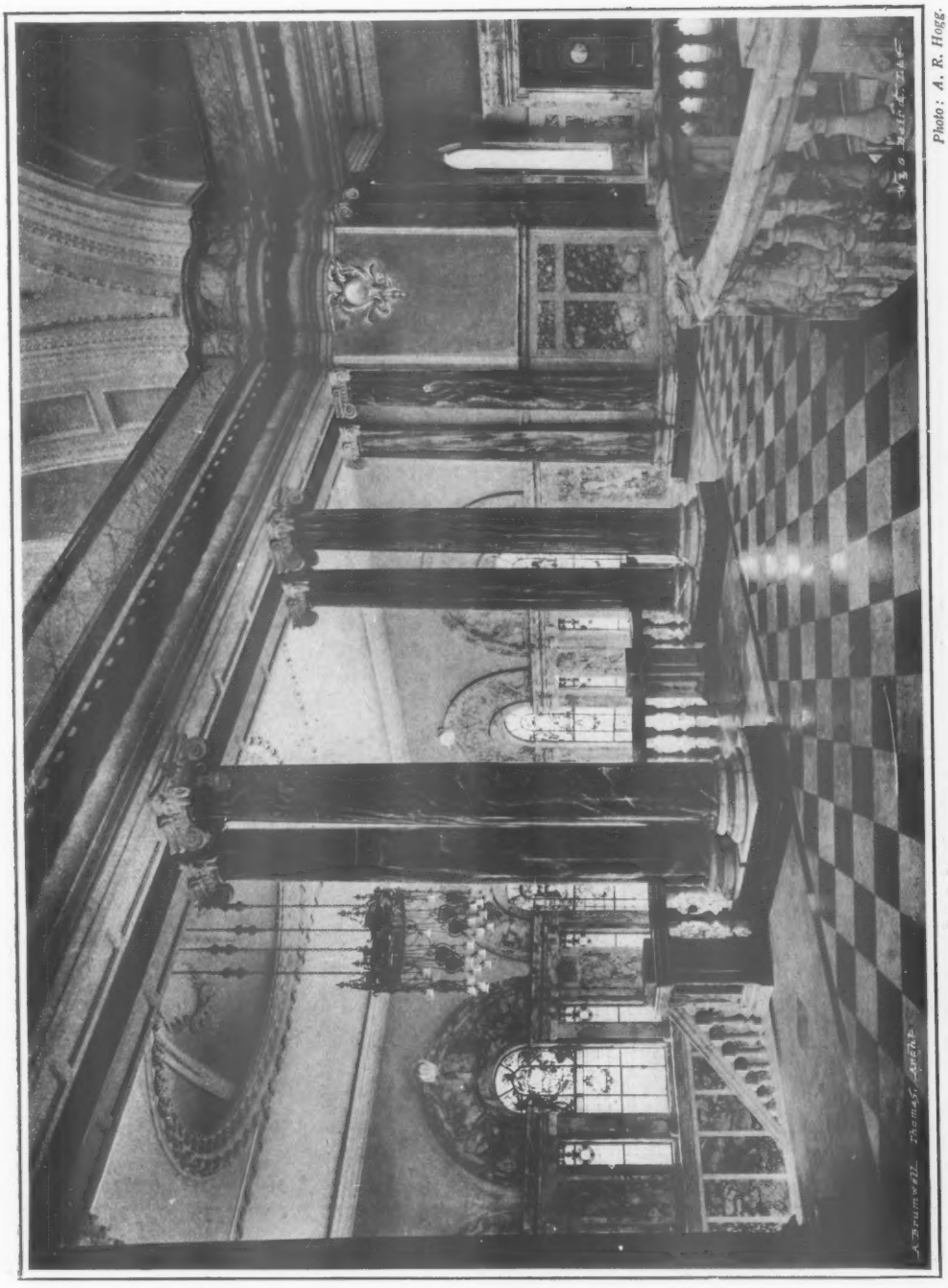


Photo: A. R. Hogg.

THE GRAND STAIRCASE, PRINCIPAL FLOOR LEVEL.

Photo: A. R. Hogg.

THE PRINCIPAL LANDING UNDER THE DOME.

Photo: A. R. Hogg.

THE RECEPTION ROOM.

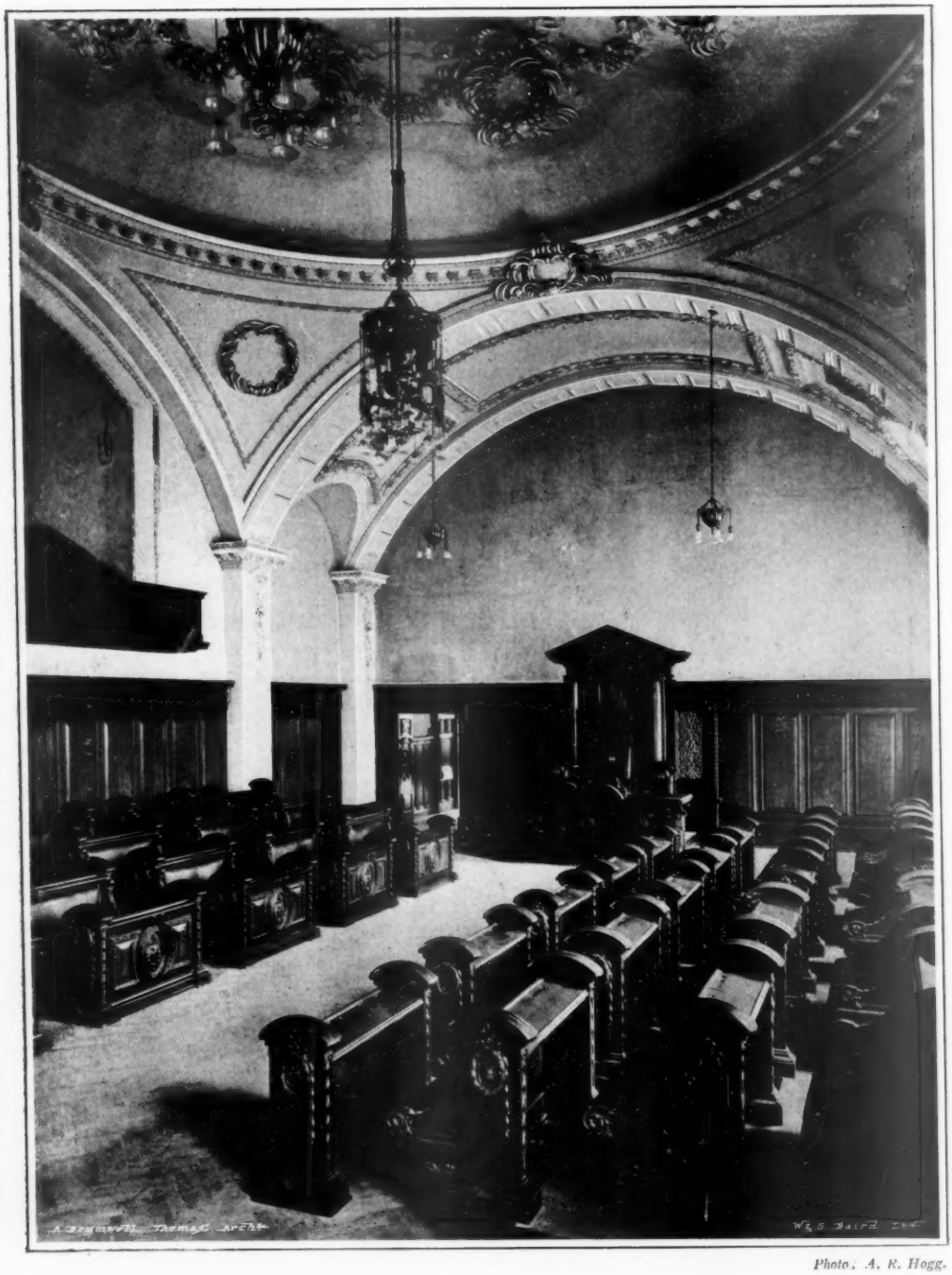


Photo: A. R. Hogg.

THE COUNCIL CHAMBER.

Photo: A. R. Hogg.

THE LORD MAYOR'S DAIS IN THE COUNCIL CHAMBER.

Photo: A. R. Hogg.

THE GREAT HALL.

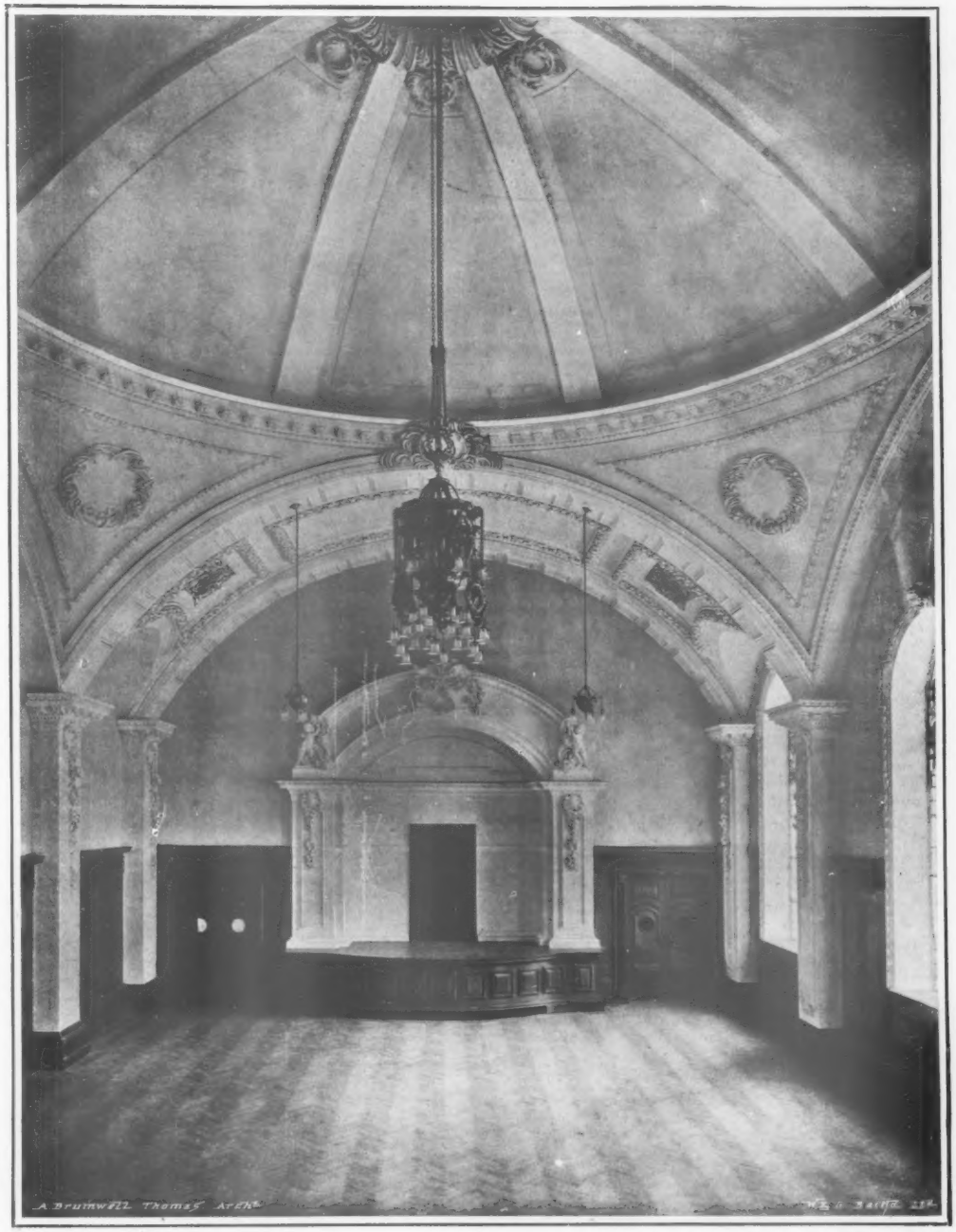


Photo : A.R. Hogg.

THE BANQUETING HALL.

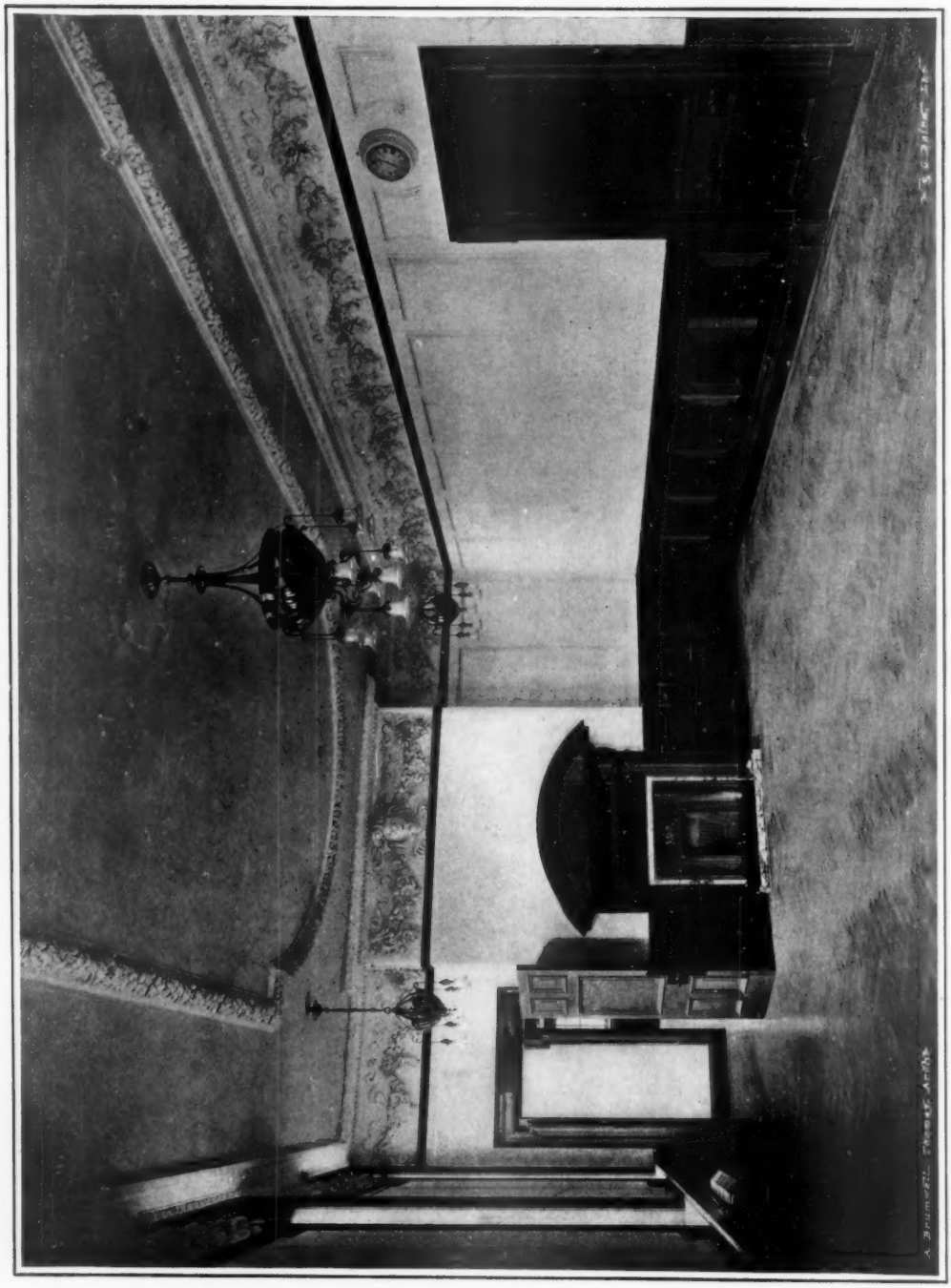


Photo: A. R. Hogg.

LORD MAYOR'S RECEPTION ROOM